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# Railway Age

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SIXTY-SEVENTH YEAR

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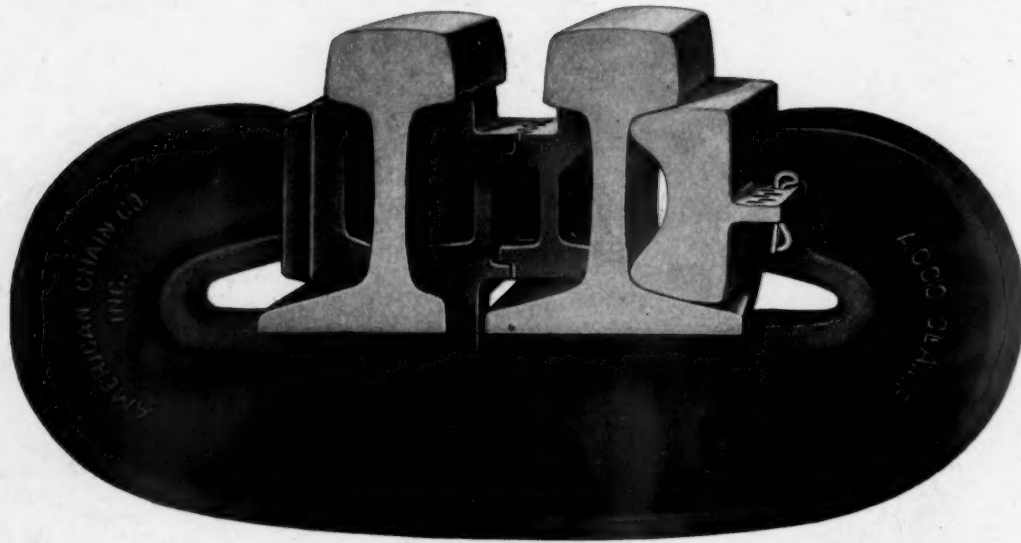
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# EDITORIAL

## Railway Age

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### Railway Public Relations Work

THE SUCCESSFUL selling of the railroads and of their service to the public has become mainly a matter of forming and maintaining satisfactory relations between the railways and the public. It goes without saying that unless the best service is rendered and the fairest and lowest rates are made which conditions permit, no amount or kind of public relations work will be of much value. On the other hand, experience has proved only too conclusively that good service and low rates will not win public favor and fair regulation unless the case of the railroads is constantly, adequately and efficiently presented to the public.

Every railway officer agrees that some public relations work should be done. They differ as to the best kind of work to do. As a matter of fact, there are many things that ought to be done, and unless most or all of them are done the relations between the railways and the public will never be made satisfactory and governmental regulation will never become fair or beneficial either to the public or the railways.

The public constantly comes in contact with railway employees. Its attitude toward the railways is influenced by the way it is treated by the employees. There is no form of public relations work more essential than that of training employees to be always helpful and courteous to patrons.

Each year the management of every railway communicates with all its stockholders through its annual report. There are several hundred thousand railway stockholders. They are the real owners of the railways. They are scattered throughout the country. They are usually people of influence in their communities. It would do a great deal of good if the management of each railway, in its annual report, would present to its stockholders not merely the detailed facts regarding the improvements made and the operating and financial results secured during the year, but also the facts regarding the general railroad situation, and urge the stockholders to discuss the railroad problem with those with whom they come in contact, and use their influence to counteract unfair propaganda against the railways and to promote sound regulation.

The late Theodore N. Vail, when he was president of the American Telephone & Telegraph Company, made its annual report the means of giving to the stockholders sound views and arguments regarding government ownership and

government regulation and in this way did some of his most effective public policy work.

The railways serve and have officers or agents in almost every territory and community. These officers and agents have opportunity to participate in all the commercial and civic activities of the various territories and communities. They could so participate in them as to make a large part of the public better realize that the service rendered by the railways is invaluable and that the managements of the railways are anxious, in their own selfish interests, to give service and make rates that will promote the welfare of the country and every part of it. The managements of the railways ought constantly to encourage their officers and agents to thus represent them in every territory and community.

The public is anxious to hear railway facts presented and railway affairs discussed from the railroad point of view. There are innumerable meetings of agricultural and business associations at which this could be done. The large organizations of the railways, ramifying through every part of the country, must contain numerous lawyers, operating men, traffic men and other officers who could effectively participate in the discussions of railway matters which will always occur at these meetings, whether railway officers participate in them or not. Unfortunately, the number of persons in other lines of business who are disposed to criticize the railways is much larger than the number of railway officers who are willing to explain and defend the policies of the managements.

There has never been a time when a large majority of the press of the country has not been willing to give space in its columns to the railway side of every controversy. The advertising columns of the newspapers and magazines are used on a vast scale by almost every class of business concerns in the country to sell themselves and their service to the public. Some railways have in the past carried on and are now carrying on valuable and effective publicity and advertising work.

Unfortunately, however, most of the railways never have employed or developed men who can and do effectively present their cases to the public through publicity and advertising. While most magazines and newspapers are willing to give space in the reading columns to material favorable



to the railways if it has news value, every publication distinguishes sharply between material which it is willing to publish as news and material which it believes should be published, if at all, as advertising. They have a perfect right to do this, and it is only sound business to do it. There is a great deal of information regarding individual railroads and the railroad business as a whole which it is to the interest of the railroads to give to the public, and to the interest of the public to receive, but which ought to be published by the railways as advertising. Some of this advertising would be for the benefit of all the railways and should be done at the cost of all. Some of it is primarily for the benefit of individual railways and should be done at their cost.

The railways are among the very largest industries in the country, and in their own and the public's interest, should be among the largest advertisers. The attitude of the press and the public toward the railways will never become and remain what it ought to be in the interest of all concerned until the railways advertise on a very much larger scale than they ever have in the past the facts about their service, their capitalization, their rates and all of the other features of their business in which the public is interested.

The return to the use of hard rubber battery jars for car lighting equipment has received considerable attention recently. The majority of the roads discarded the rubber jar years ago because

#### **Rubber Jars for Car Lighting Batteries**

of the large number of jars broken in service. In contrast to this conclusion it is especially interesting to note that one large road that operates some 1,250 sets of batteries of 16 cells each on passenger train equipment has continued to use the rubber jar and claims real economy by the practice. Battery jars cannot be grounded if they are made of rubber, nor are the rubber jars subject to leaks caused by chemical or electrolytic action, as in the case of lead tanks. As a result the maintenance costs of batteries using rubber jars are reduced considerably. If lead tanks are used, it is necessary to keep an experienced lead burner at each of several terminals to repair jars that develop leaks. On the other hand, rubber jars may be broken by the growing of the positive plates or by rough handling in crates not properly constructed. The growth of the positive plates can be minimized by so adjusting the charging equipment as not to allow excessive overcharging. However, in spite of the best of precautions the positive plates will often grow and the only alternative is to remove the battery from the car at regular intervals, tear down the cell and trim the plate off to the proper dimensions. Another solution is to adopt a type of positive plate that does not grow appreciably. The successful use of rubber jars on the road in question may be, in a large measure, attributed to the attention given to the design of the crates and care given to secure the proper fit. The records of this road show that for an average covering the last three years the cost for maintenance and replacement of rubber battery jars for a coach is only 30 cents a month and for a sleeping car 34 cents a month. As explained in detail in an article elsewhere in this issue, the road under discussion is evidently securing very good economy from the use of rubber battery jars in car lighting service and it might be well for other roads to check their costs with those given.

As outlined briefly on another page some unusually valuable foundation data were developed recently at Chicago as a

#### **A Public Service**

result of tests made by the engineering staff of the Chicago Union Station. Loading tests were made on full size concrete piers or caissons carried down 65 ft. to a stratum of hardpan, thus affording information not hitherto available concerning bearing pressures and in particular as to the soil skin friction. The cost of the test to the station company was about \$15,000, an expense more than justified because it may mean a saving of many times that amount in the construction of foundations for the station headhouse. The tests had their inception in a problem confronting the engineers of the station company with regard to foundation piers (caissons) which had been designed and constructed to support a headhouse of the single-story, monumental type. Owing to the fact that it was decided to change the plans to a building of 16 to 20 stories, after the caissons were sunk, the engineers were required to determine if they could safely carry the higher and therefore much heavier structure. The problem of allowable pressures on hardpan is one which has perplexed the structural engineers in the city of Chicago ever since they were required to provide for the loads of tall buildings. In the matter of skin friction, the knowledge of engineers has been based largely on conjecture. But owing to the great cost of comprehensive tests, it was not until money was appropriated for this purpose by the Union Station Company that tangible information has become available. Unlike expenditures for development work carried on by a manufacturer in the perfection of a device in which he is enabled to profit through the granting of a patent, the results of these foundation tests will become public property. The making of these tests, therefore, constitutes a public service for which the officers of the corporation should receive due credit.

With more than 1,200 railway power plants in operation in the United States, consuming many thousand tons of coal annually, the possibilities of economy

#### **Possibilities of Fuel Economy in Power Plants**

or waste in converting this coal into power are extremely important and often overlooked. Prominent combustion engineers have frequently stated that the average steam power plant without special attention to economy loses approximately 25 per cent of its fuel due to preventable heat losses alone. There is loss in handling the coal, by incomplete combustion, by air leakage in furnaces, by soot on heating surfaces, by scale in the boiler, by inefficient steam engine units, by power transmission losses and by uneconomical use of power in the shops. Probably few railway power plants are operated so efficiently that attention to these details would not show immediate results in fuel economy, and the man to start things going is the highest mechanical department officer. If the superintendent of motive power and shop superintendent never visit the boiler room or take steps to find out what is going on there, how can the plant engineer or firemen be expected to take much interest in fuel economy? The latter are taught, by inference at least, that it is relatively unimportant. Much of the boiler plant equipment now in service has been used many years and cannot compare in efficiency with modern equipment. The question of installing new equipment, however, becomes the more or less delicate one of balancing possible savings against carrying charges on new equipment, for which capital is not easily obtained in the present state of railroad credit. Flue gas analysers, differential draft gages, pyrometers, steam indicators and other test apparatus cost relatively little. Power plant engineers should be en-



couraged and afforded every assistance in making such tests as will locate fuel wastes in any place where they may occur. Improvements in furnace, boiler, or engine operation can then be made as needed and the railroad fuel bill correspondingly reduced.

That the railroads are endeavoring to aid the country in returning to normalcy, and to the traveling conditions which existed prior to the war, is evidenced

#### Passenger Rates

##### Are Being Cut

by recent announcements of the western carriers that, beginning March 7, semi-monthly "homeseekers' rates" will be restored to practically all western points. These rates will reduce the present cost of a round trip ticket to that of a one-way fare plus two dollars, and, while made partly for the purpose of assisting in the colonization of the sparsely settled western districts, will be open to general purchase. Less than three weeks ago the same roads announced reduced summer tourist fares to western points, approximately the same as before the advance in rates of 1920. It is apparent that the passenger traffic departments of the railroads recognize the need for stimulating travel and are directing their efforts in that direction. So far, the reductions made have been principally by western lines. The eastern roads may follow a like course and reduce summer fares to seaside resorts, etc. It is likewise probable that the low-priced week end local excursion rates, famed in the years gone by, will again be resumed. Just what effect these reduced rates will have on passenger earnings is problematical.

The International Railway Congress at Rome, Italy, April 18 to 30, presents an unusual opportunity for railway officers

#### International Congress at Rome

to meet their fellows from all over the world, to discuss their common problems and to benefit from the experience of others. Rome has been well chosen as the meeting place, from the standpoint of the United States and Canada, because England, Belgium, France and Switzerland can be visited on the way with but little deviation from the most direct route. Thus, in addition to the unquestionable value of the discussions of technical problems at Rome and the opportunity afforded to meet railway men from all over the world, the itinerant American railway officer can easily devote some attention to railway practices in several European countries. The experience would broaden any railroad man and might very well suggest to him opportunities for improvement on his own line. Few would challenge the statement that railway development on this continent can, in a general way, be held up to the whole world as one of the greatest achievements in history. Such a statement does not, however, preclude the possibility of our learning many things—to do and to avoid doing as well—from European practice. The officers of railways where electrification is being considered, for instance, could probably find much of interest in Italy and Switzerland, where there is already a considerable mileage of electrified line, and in France where an electrification program of tremendous proportions is in its initial stages. In England our officers could make some observations of the passenger service which is so often held up to us by travelers who claim its superiority over our own. In short, the whole trip could be arranged so that there would be little time spent unprofitably. Moreover, while the excursion would have none of the characteristics of a junket, it would, of course, provide a beneficial relaxation from customary duties which many of our railway officers are ordinarily loath to leave even for a brief vacation.

The law should require, everywhere, that omnibuses filled with passengers be brought to a stop before crossing a railroad at grade. It would seem as though

#### The Painesville Crossing Disaster

the experiences of the last few years ought to impress the stop-look-and-listen rule on everybody; but the killing of 16 people at Painesville, Ohio, on the night of March 3 calls attention again to the fact that reckless or ignorant drivers are still very numerous on our highways. This case is unusual in two particulars. The reckless driver ran his omnibus on to the crossing in the face of a watchman's warning signal, given with a hand lantern, in what seems to have been ample season to bring the driver to his senses. And the tragedy occurred in a state in which legislation concerning safety at crossings had been discussed and where, indeed, a law had been enacted; but a law which fell just short of covering a case like this. It requires that where school children are the passengers an omnibus shall be brought to a stop; but other classes of people are not accorded any such protection. In a recent court decision, where passengers riding in an automobile with a careless driver were injured at a crossing, the judge held that not alone the driver, but also the passengers themselves, would be chargeable with negligence if they were in position to check his reckless conduct and did not do so. It is regrettable to burden the statute books with laws which can be enforced only at great expense, or which certainly will be flouted by many otherwise respectable citizens; but in this matter society has no alternative; it must legislate to put the duty of protection where it belongs because only in that way can it relieve itself from an unjust responsibility.

### Canada's Heavy Railway Losses

ONE OF THE MOST DIFFICULT problems with which the government of the new Premier of Canada, W. L. MacKenzie King, must grapple is presented by the government railways. The Dominion government is in serious danger of having its credit destroyed by its railroad policy. The Dominion is considering trying to float a large loan in the United States. American investors probably will consider Canada's railway policy before deciding on the desirability of buying its government securities.

We publish elsewhere in this issue the first of two articles on "The Problem of the Government Railways in Canada," by W. T. Jackman, Associate Professor of Economics in the University of Toronto. Mr. Jackman's articles should be interesting to students of railway questions throughout the world, and especially to the people of Canada.

The deficit officially admitted by the Canadian government as having been incurred by its railways in 1920 was over \$70,000,000. This, however, did not include interest on the investment in a large part of the railways owned by it. J. L. Payne, formerly controller of statistics of the Department of Railways and Canals, who is probably the best authority on railway statistics in Canada, estimated the total losses, direct and indirect, at about \$136,000,000.

Complete statistics for 1921 are not yet available. Those that are available, however, indicate that the government railways as a whole failed by at least \$20,000,000 to earn their operating expenses. To this should be added about \$100,000,000 for interest on the investment. Therefore, directly and indirectly, government ownership of the railways last year added to the burdens of the Canadian taxpayer around \$120,000,000.

The government now actually owns about 17,000 miles of railway. It is still carrying on negotiations for the acquisition of the Grand Trunk, which would make the total mileage actually owned and operated by it about 22,500 miles. In view of the enormous deficits which always have been in-

curred by every railway owned by the Dominion government since it acquired the Intercolonial over a half century ago it would seem wise for the people of Canada to do some very hard studying and thinking before they finally take over the title to the Grand Trunk.

There are many Canadians who favor adding the Grand Trunk to the government system, first, because they think it will "round out" that system and give it more business, and secondly, because they believe the net earnings of the Grand Trunk will partially offset the deficits of the other government lines. No reasoning could be more fallacious. In the first place, the Grand Trunk now has traffic arrangements with the government lines which cause it to interchange practically as much business with them as it would if they were under a single ownership and management. In the second place, not only the experience of Canada, but the experience of every democratic country in the world indicates that under permanent government ownership the Grand Trunk itself would become and remain a producer of large deficits.

Deficits always have been the result of government operation of railways in democratic countries. This is not always, or perhaps even usually, due to inefficiency in the official personnel. It is almost always due to the fact that the government owned and operated railways are subjected to influences different from those to which private railways are subjected. These influences are chiefly political. They render it impossible for the management adequately to advance rates when they ought to be advanced, or adequately to reduce the number of employees when it ought to be reduced. In many cases they cause expensive service to be rendered which from an economic point of view ought not to be rendered. No future thing could be more certain than that if the government acquires the Grand Trunk Railway it will in a comparatively short time increase the government's railway deficit and not diminish it.

Now, the railway deficit is becoming an extremely serious thing. Canada has only nine million people and the Dominion government has an annual revenue of only about \$450,000,000. It needs about \$109,000,000 a year to pay expenses due to its participation in the war, including interest, pensions, etc. Its national debt is heavy and instead of declining has been increasing since the war ended. This increase in its national debt has been mainly or entirely due to the deficits incurred by its railways. The government will be positively inviting bankruptcy if it engages in any more railway ventures.

If the people of Canada have any doubt that continued government management of railways, and especially an increase in the mileage of government railways, means a continuance of railway deficits let them consider what has been happening in the rest of the world. Railway deficits are not peculiar to Canada. Large deficits were incurred by the railways of the United States in 1918 and 1919 under government operation. They were not due to the official personnel, which was not much changed, but to the system of management, which was radically changed. The organization and policy always are and always must be different under government from what they are under private management, because the controlling influences are different, and these controlling influences always tend to produce deficits. Since the government guarantees to the railroads of the United States were withdrawn they have incurred losses, but the taxpayers have not had to pay them.

Most of the government railways of Australia incurred deficits before the war. These have been increased since then. The deficits in the year ending June 30, 1921, of the Australian railways for which we have statistics were as follows: Queensland, \$7,694,000; Victoria, \$3,171,000; New South Wales, \$2,808,000; Western Australia, \$2,000,000. The total for the railways of these countries was almost

\$16,000,000. The New Zealand state railways had a deficit of almost \$600,000.

Before the war, under a highly centralized monarchical government, the Prussian state railways earned substantial profits, while the railways of most of the German states did not earn interest on the investment in them. Since the war the German state railways as a whole have been incurring enormous deficits. In 1920 their deficit exceeded fifteen billion marks. Of course, this is in a depreciated currency. For 1921 the deficit was estimated some time ago at seven billion marks, but we shall know better what the deficit really was when complete figures for the year's actual operations are available. There are six private railway companies in Germany. It is a significant fact that between 1913 and 1920 the ratio of their total expenses to their total earnings increased from only 60 per cent to 96 per cent, while that of the state railways increased from 70 per cent to 179 per cent. These figures mean that in 1913 the expenses of the German state railways were 70 cents for every dollar that they earned, while in 1920 their operating expenses were \$1.79 for every dollar they earned.

It is not yet too late for the people of Canada to make some arrangement under which the Grand Trunk can be privately owned and operated in future. They will do so unless they choose to disregard the warning plainly given by their own past experience with government operation as well as with the past experience of the entire world. One thing is certain. The Dominion of Canada cannot afford to operate a railway system of 22,500 miles at a chronic loss proportionate to that which has been incurred on all its railway ventures for over a half century. To do so would be to impose upon the business and the taxpayers of the country an unsupportable burden and completely to destroy the government's credit.

## Supreme Court Decision a Doubtful Victory

THE RECENT DECISION of the Supreme Court in the case from Wisconsin involving the power of the Interstate Commerce Commission to advance state rates is a rather doubtful victory for sound regulation.

The court upheld the orders of the Interstate Commerce Commission in litigation, requiring state rates to be advanced to the basis of interstate rates, solely upon the ground that the Interstate Commerce Commission was given power to issue such orders by the Transportation Act. Many of those who claimed that the Interstate Commerce Commission had power to advance state rates which discriminated against or imposed an undue burden on interstate commerce contended that it had been held to have this power by the Supreme Court in the Shreveport case, and that the Transportation Act gave new expression to, but did not increase, its power over state rates. The Supreme Court, in its recent decision, rejected this view. It said in effect that there are two ways in which state rates may discriminate against interstate commerce.

First, they may be unfairly discriminatory because they are lower from one point in a state to another point just within the border of that state than interstate rates to a point just across the border in another state. This kind of discrimination in rates, which puts a shipper who is sending goods to a point just without a state at a disadvantage compared with a shipper who is sending goods to an adjacent point just within the state, is held to be prohibited by the doctrine of the Shreveport case.

Secondly, a state may make all the rates within its borders so low compared with the interstate rates that the revenues derived from the state business will be unduly small com-



pared with those derived from the interstate business. The Supreme Court holds that this *revenue* discrimination is not prohibited by the principle of the Shreveport case, but that it is prohibited by the rate making provisions of the Transportation Act. This act requires the Interstate Commerce Commission to fix rates which will enable the railways to earn a fair return upon the aggregate valuation of their property, taking into consideration the need of the country for adequate transportation. The court upholds the power of Congress to impose this duty on the commission and decides that any state which makes rates which will not contribute their fair share toward the revenues held by the Interstate Commerce Commission to be needed, would unduly discriminate against the burden interstate commerce within the meaning of the Transportation Act.

A reading of Chief Justice Taft's opinion makes very plain that if the Transportation Act had not been passed the states would have power to make any rates which were not absolutely confiscatory, provided they did not work unfair discriminations at border points. The rate making provisions of the Transportation Act have, therefore, derived from this decision a new importance from the standpoints both of those who favor and those who oppose so-called "state's rights" in the regulation of rates. Suppose that the Interstate Commerce Commission should continue to hold that the public welfare requires that the railways be allowed to earn an average net operating income of six per cent on their aggregate valuation. As long as the present rate making provisions of the Transportation Act stand the commission can force state rates to be so made that they will contribute their share toward the revenues necessary to yield this return. On the other hand, if the rate making provisions should be repealed, the states thereafter, so long as they did not unfairly discriminate between persons and places at border points, could fix rates which would yield less than six per cent on state business, unless the courts should hold them confiscatory.

It is highly probable that the decision of the Supreme Court will intensify the struggle already going on between those who would repeal and those who would retain the rate making provisions. These provisions practically vest in the Interstate Commerce Commission exclusive authority to determine what return in excess of one that would be confiscatory the railways of the United States may earn. To repeal the Transportation Act would be to divide this power between the Interstate Commerce Commission and all the state commissions. The result might be that the railways in each state would be allowed to earn a different return from that earned in every other state.

The railways render a national service. Eighty per cent of their freight earnings, one-half of their passenger earnings and three-fourths of their total earnings are derived from interstate business. The country tried for years the plan of having rates independently regulated by the Interstate Commerce Commission and the authorities of the various states. The Interstate Commerce Commission represents the people of every state, being a branch of the federal government. If the power to determine what net return the railways may earn should be vested in governmental authority at all the argument for vesting it in the Interstate Commerce Commission alone seems conclusive.

The state commissions are, however, anxious to recover the authority over revenues derived from state business that they formerly exercised. The advocates of so-called "state's rights" are constantly growing more active and clamorous. It is evident that if the rate making provisions of the Transportation Act are to be retained and the more enlightened policy of regulation they were intending to establish is to be secured, no time should be lost by those who are in favor of their retention in voicing their views and making their influence felt.

## Letters to the Editor

[The RAILWAY AGE welcomes letters from its readers and especially those containing constructive suggestions for improvements in the railway field. Short letters—about 250 words—are particularly appreciated.]

### Possibilities of Promotion for the Secretary

ON LINE.

TO THE EDITOR:

I have read with a great deal of interest the articles appearing in recent issues concerning the chief clerk, especially the one appearing in the issue of February 25, signed "Operating Official."

I note "Operating Official" states that the chief clerk's work consists principally of general office work and that he does not acquire sufficient knowledge of the road work to warrant his promotion to an operating position. I agree with him that few chief clerks acquire a clear knowledge of the road work; but what of the secretary? Does he not acquire a great deal of learning in the operation of the road during his regular routine of duties? He is necessarily on the road two-thirds of every month in the year, and anyone who is intelligent, quick of perception and willing can certainly acquire a clear working knowledge of the operating conditions. What, then, are his chances for the higher position? You may say he stands in line for promotion to chief clerk. I, personally, would decline the promotion, for it seems to me that after a man once takes a chief clerkship his line of promotion is ended.

From the knowledge a secretary gains in his work I feel that he should be able to hold down the job of assistant trainmaster, and, if he is quick and is under the directorship of an efficient trainmaster, will surely be able to learn all the details within a short time. Are the operating officials willing to give their secretaries that chance? I am not saying that the secretaries are imposed upon, and I heartily disagree with my friend of recent weeks who wrote the letter entitled "The Official Goats." If his boss treats him in that manner there must be some justification for it. I have always enjoyed the confidence and good-will of my boss and my relations with him have always been most pleasant. I would like to see a reply from an "Operating Official" giving his views on the question above. "SOUTHERN SECRETARY."

### Mixing Railroading and Religion

NEW YORK.

TO THE EDITOR:

I have read with deep interest and great pleasure the letter from "Train Dispatcher," published in your issue of February 18 under heading "Will Religion and Railroading Mix?" because he touches a most important point. His question might well be broadened to read "Will Religion and Any Kind of Business Mix?"

Recently, while at a division point, I was quite unexpectedly invited to attend a dinner of a R. R. Y. M. C. A. Bible class. It seemed to be a regular weekly affair and there were, I believe, upward of a hundred men present. After dinner had been served, which had been interspersed with singing of hymns, an old railroader read a lesson from the Bible and followed it with a brief and interesting explanation. There was plenty of enthusiasm during the singing and rapt attention during the reading and subse-



quent remarks, and I could not help but feel that any effort in the direction of acquainting the men with the principles laid down in the Bible—in brief, with God—must tend to elevate their thinking to a higher level and make them better workers, i. e., teach them to work more conscientiously, not because of fear of losing their jobs or merely to earn some money, but as a matter of principle, realizing that it is right to give an honest day's work for an honest day's pay—or, to put it another way, because only right acting can bring and must bring due and just compensation.

And all this applies to executives as well. By taking God into our business, in humble obedience to the injunction "In all thy ways acknowledge Him and He shall direct thy paths" (Prov. 3:6), and by observing the Golden Rule (Luke 6:31), all classes are reaching a common level on which they can meet in full confidence. What is needed in business—especially in railroading—is more religion and less politics.

All this may sound visionary, but the time will surely come when it will be recognized that religion is not merely a thing for Sundays, but an everyday requirement, and we all shall learn how to apply it practically in everyday affairs and especially in business.

RAILROADER.

## Can Railways Earn a Fair Return?

LONDON, England.

### TO THE EDITOR:

Permit me to thank you for your criticism of my paper with the above title, which was published in the *Railway Age* of January 28 and commented upon in the same issue. My object in sending it was to evoke discussion. But I seem to have failed to make my point clear.

I assume we shall all agree on two propositions:

(1) If railroads can earn a fair return directly, by all means let them do so; there is no balance to be made up, and we need not therefore discuss how it is to be done.

(2) But railroads are as necessary to the community as highways. If therefore they cannot earn a fair return, the public must in some shape or form make up the deficiency.

Now let me give an example to illustrate my meaning. The New Haven is not earning a fair return. It is necessary to the community. It may be said: let the New Haven rates be further increased. The answer is that it is very questionable whether further increases would produce more net revenue. Certainly they would hamper the trade of the Port of Boston and would handicap New England manufacturers in competition with those in other parts of the country. Probably they would divert further traffic to the motor trucks, and therefore not only further diminish New Haven net revenues, but also increase the cost to the New England public of maintaining the highways.

Broadly, then, my point is that the conditions of competition between traffic by railroad, which is expected to pay total cost, and traffic by highway, which only pays conveyance cost, must be more nearly equalized. You may redress the balance to some extent by calling upon the motor trucks to meet some portion of the total cost beyond the mere conveyance costs. In my judgment in some cases it will be necessary also to relieve the rail-borne traffic of some share of total cost. This is in the public interest because there can be no doubt that, except for high class traffic for short distances, total road cost is greater than total rail cost.

Let me add that I never suggested a "government appropriation to make up railway deficits." What I did suggest was that, in certain cases, the government should assume the responsibility for some portion, or the whole, of the cost of providing the railroad. For instance, taking the New Haven case, I can imagine the states through which this railroad runs contributing, say, \$5,000,000 or \$10,000,000 per annum to meet the interest on New Haven bonds; and then leaving

it to the Interstate Commerce Commission precisely as at present, to fix such reasonable rates as will produce a reasonable return on the balance of the New Haven capital.

W. M. ACWORTH.

## "East Brookfield on the Map"

HARTFORD, Conn.

### TO THE EDITOR:

Your report, printed last week, of the installation of audible signals on the Boston & Albany at Chatham and at East Brookfield, is an event of importance. With audible signals in use in France for 40 years, and in England for about 20 years, it is a trifle odd, to say the least, that up to the present time this country has done nothing at all in that direction.

It is also interesting to see that East Brookfield is on the map. It is a place where, apparently, something is needed to wake up sleepy enginemen. The recent government report, calling on the Reading road to install automatic train control on a short branch, doing a light business, because a collision had occurred on that branch, is sufficient justification for the principle that remedies for disease ought always to be applied where the disease exists. East Brookfield has been the scene of two notable collisions when careless enginemen of passenger trains ran into freights; and the road has, evidently, determined to take effective measures to prevent a repetition of such disturbing incidents at that point.

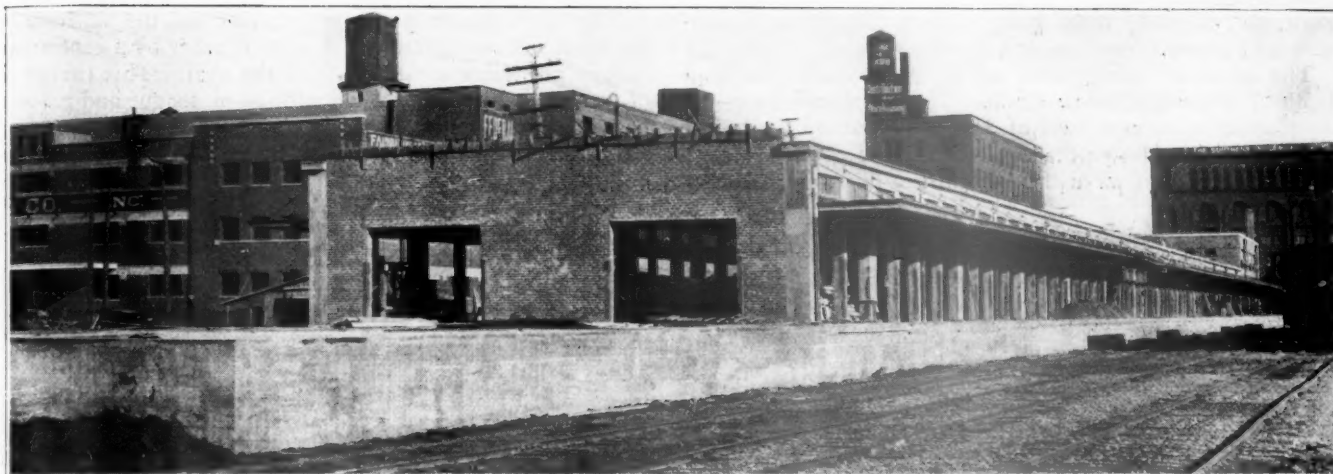
The first of these collisions occurred on Friday, February 25, 1853. The New York afternoon express, drawn by the locomotive "Addison Gilmore," (which engine at that time was the glory of the railroad world, at least in the eyes of New Englanders) ran over a misplaced facing switch and collided with freight cars standing on the side track. Engineman Isaac Wadleigh and Fireman Charles Dresser were, however, the only persons seriously injured.

The second accident was on March 31, 1880, and it occurred to the same train. In both cases the engineman was at fault, the line being straight and the weather clear; but the discipline in both cases seems to have had to do mainly with the station men. In 1880, as distinguished from 1853, there was a power brake by which the train could have been stopped if the engineman had been alert; and there was a state railroad commission to investigate the case. The report of the commission does not indicate that there were any fatal injuries. The switch tender was dismissed and the station agent was requested to resign. As to the time when the air brakes were applied, or how far away the engineman was when he first saw the switch target, the report of the commission contains the usual array of conflicting evidence, such as railroad officers are familiar with today.

You will understand, Mr. Editor, that I am not proposing any particular commendation for the Boston & Albany in this matter. A need which has existed for 69 years must be classed as some need! And, if the warning had not been repeated 27 years later, there is no telling but what it might have been forgotten entirely. To wait 41 years after the second warning certainly cannot be called particularly commendable. So far as concerns prompt recognition of a defect, and effective application of a remedy, this road is not, in this particular instance, to be taken as a model. However, the remedial action has been instituted, and all concerned should be congratulated.

And, if a thought is to be given to the matter of condemnation for slowness, the Boston & Albany is not alone. That shining list of railroads which you designate as Class I (with a big I) contains a large number of very respectable names of roads whose policy is equally slow—or much slower.

B. B. A.



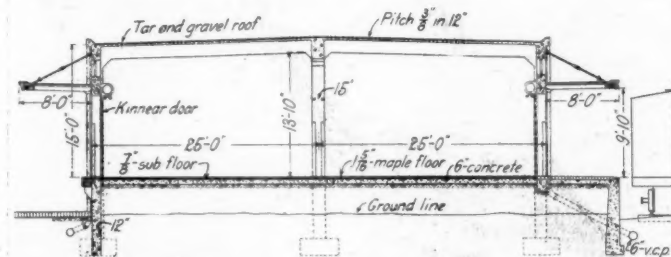
View of the Freight House From the North End

## Katy Builds Freighthouse of Fireproof Construction

Inbound Terminal, Recently Completed at Dallas, Tex., Is Erected to Modern Standards

**A** NEW INBOUND freighthouse was recently completed for the Missouri, Kansas & Texas at Dallas, Tex., at a cost, including auxiliary improvements, of \$350,000. The existing outbound house, a frame building, was also moved a sufficient distance to allow space for four tracks between the inbound and outbound houses. Other improve-

ments include the paving of adjacent streets and driveways, with vitrified bricks laid with an asphalt filler on a concrete base, and the extension and rearrangement of the team yard.

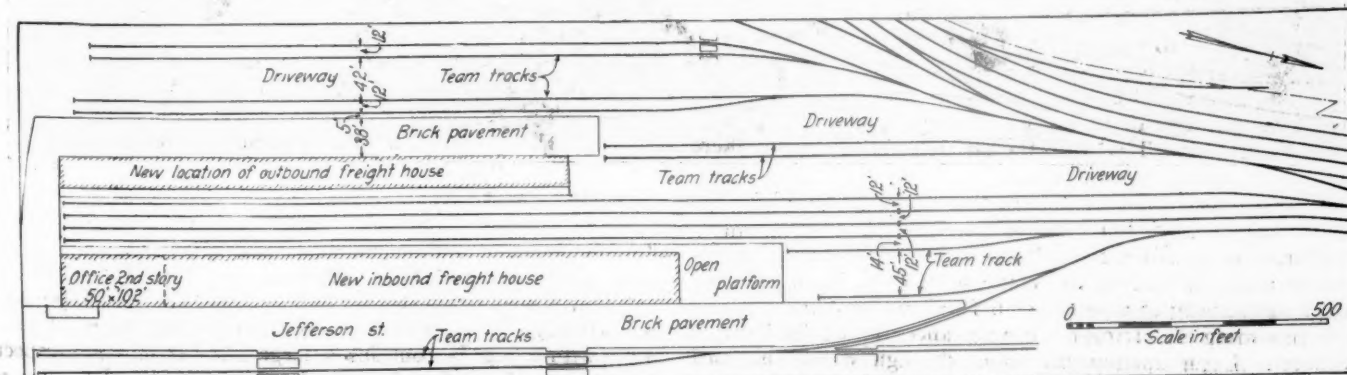


Section Through the Warehouse

The new house is 600 ft. long by 50 ft. wide and one story in height except 100 ft. of the south end, which is two stories high, the second story and the south 20 ft. of the first

floor being used for offices, stairways, toilet rooms, etc. An eight-foot platform is provided along the track side of the warehouse, and in addition there is an open platform 100 ft. long by 58 ft. wide at the north end.

The building is of fireproof construction throughout. The ground floor is supported on a concrete slab, which rests on a fill enclosed by retaining walls, except for a small basement to house a heating plant at the south end of the building. The frame of the structure is of reinforced concrete with a reinforced concrete slab for the roof and for the second floor and a portion of the first floor over the basement. The north end of the warehouse and the south end and second floor of the office building are enclosed with brick walls with wire-glass windows set in standard sheet metal fireproof sash and frames. In the warehouse, owing to the maximum utilization of wall space on the team and track side for doors and windows, the brick work was superfluous, and only the concrete lintels, columns and girders are exposed to view between the wall openings, which are fitted with Kinnear rolling doors with wire glass in Fenestra sash in the transoms. The stairways consist of No. 12 gage pressed steel treads and risers, carried by stringers of 3/16 in. plates. The treads are covered with 1 1/2 in. of concrete and are fitted with Mason safety treads. The office space on the second floor is provided with a plaster ceiling on wire lath and metal



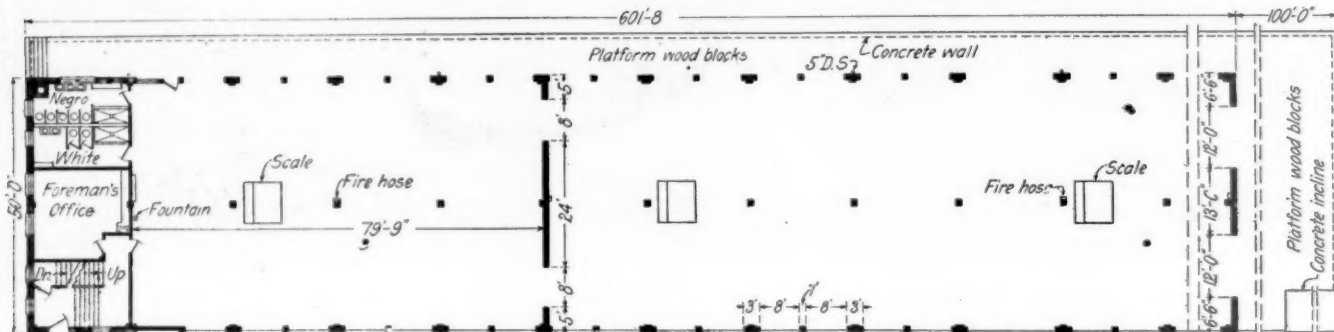
Location of the New Freight House in Relation to Existing Facilities



joists, suspended by metal hangers from the reinforced concrete roof frame.

The building is supported on natural foundations at a depth of a few feet below grade. The warehouse floor and the platforms are at a level of 3 ft. 10 in. above the top of rail. Inside the house the concrete floor is covered with a 1 5/16 in. maple floor with a 7/8 in. sub-floor, carried on 2

The doorways along the roadway side and the platform on the track side are protected from the weather by a continuous canopy projecting eight feet from the wall. This canopy is of frame construction, covered with 7/8 in. tongue and grooved boards and the entire frame is supported from the building by 7/8 in. tie rods anchored into the wall. The roofs of the building are covered with tar and gravel, sloping from the



First Floor Plan of the Freight House

in. by 4 in. sleepers imbedded in the concrete. On the platforms creosoted wood blocks take the place of planking.

The concrete framing of the superstructures consists of three lines of columns spaced 20 ft. longitudinally and spanned by longitudinal girders. These in turn support transverse beams spaced 6 ft. 8 in. center to center, which carry the roof and floor slabs. For the warehouse doors the 20 ft. panels are cut in two by 12-in. by 12-in. concrete door posts, leaving two openings 8 ft. wide by 9 ft. high for the

longitudinal center line each way to gutters along the two sides of the building, having external downspouts at intervals of 40 ft.

Warehouse scales with platforms 4 ft. 8 in. by 7 ft. 6 in. are installed on the center line of the freight house at intervals of 80 ft. and an automobile scale with a platform 9 ft. by 20 ft. is provided on the platform at the north end where a crane has also been installed to handle heavy shipments. At every fifth column on the center line of the building a fire



The Freight House Is Well Lighted

rolling doors. All columns and door frames in the warehouse are protected at the corners by 6-in. by 6-in. steel angles extending to a height of 6 ft. above the floor. Along the roadway side of the building a 12-in. by 12-in. bumper timber is provided, supported on reinforced concrete brackets. This timber is covered by a 3/8 in. plate, the top sheet being a diamond pattern safety floor plate.

hose is provided with connection to a Volkhart valve and base installed in a pit below the floor.

The office portion of the building on both the first and second floors is heated by steam from a plant in the basement, which is of the vacuum return type. Generous natural illumination of the building, both in the offices and the warehouse, is supplemented by a complete system of electric light-





weight of the rails to the top of the foundation. Under this arrangement sustained loads of gradually increasing amounts were applied to the caissons, while repeated check levels were made to note settlement. These tests showed that the material on which the caissons were supported would carry loads many times in excess of those that were allowed by the building department of the city.

The most interesting part of the test consisted in a further experiment on the smaller of the two caissons, namely the one with the base of four feet diameter. After the bearing test had been completed a shaft was sunk alongside of the larger caisson and a tunnel driven to the other one for the purpose of making an excavation under the bottom of the caisson so as to leave it supported entirely by the friction between the sides of the shaft and the material in which it was imbedded. Upon making loading tests on the caisson in this condition, it was found that it would sustain a maximum load of 250 to 260 tons, solely from the friction on the sides. This superimposed load, together with the weight of the caisson itself, 65 tons, gave a total load of 315 tons, which, divided by the area of the sides of the cylinder, gave an average load of 700 lb. per sq. ft. as the ultimate value for the skin friction. These caissons were dug in the ordinary manner and curbed with wooden lagging, the lagging necessarily remaining in place. More concrete facts concerning this test will be available when the studies now in progress are completed.

## Freight Car Loading

WASHINGTON, D. C.

**F**REIGHT CAR LOADING for the week ending February 25 showed another drop, due to the observance of the holiday on February 22, to 735,286 cars, according to the weekly report of the Car Service Division of the American Railway Association. This compares with 780,924 for the preceding week. However, it represented a considerable increase as compared with the corresponding week of 1921, when the loading was 659,642, although it was less than for 1920, when it was 783,295. As compared with last year, increases were shown in the loading of all classes of commodities except forest products and ore, but the principal increase was in coal, merchandise and miscellaneous.

Increases were shown in all districts except the North Western.

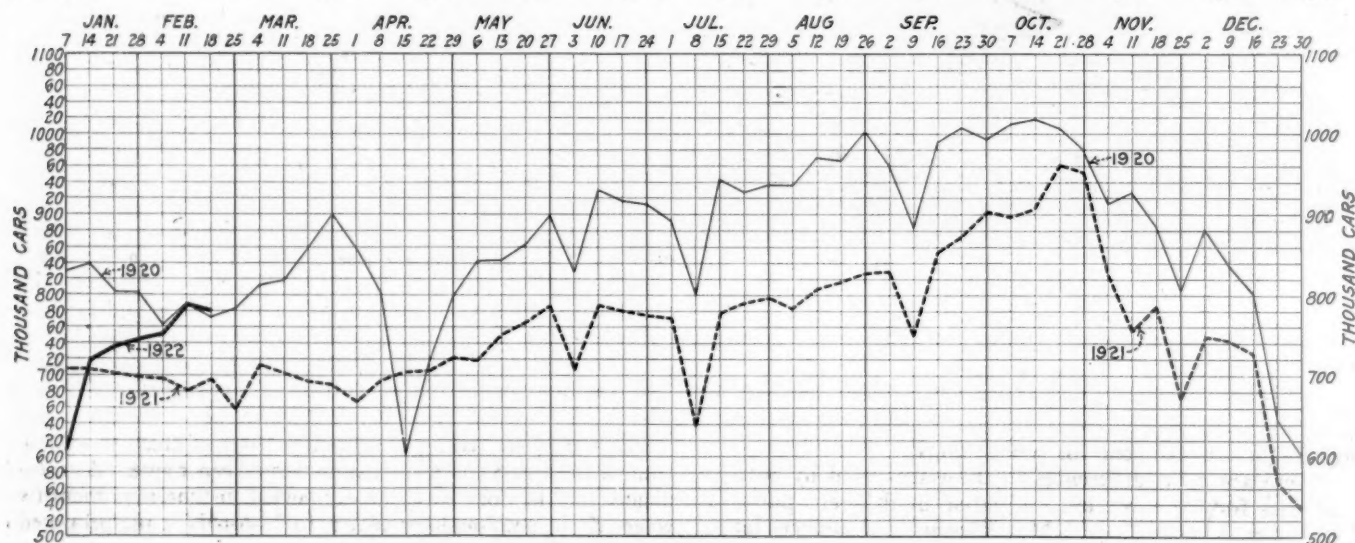
The freight car surplus showed another reduction during the week ending February 23 to 264,814, a reduction in a week of 13,667. Of the total, 105,938 were surplus box cars, while the surplus coal cars numbered 105,570. The number of bad order freight cars on February 15 was 332,614, or 14½ per cent. This was the same percentage as was reported on February 1.

A summary of loadings by commodities and districts is given below, as is a diagram comparing 1922 with 1920 and 1921.

### REVENUE FREIGHT LOADED AND RECEIVED FROM CONNECTIONS

SUMMARY—ALL DISTRICTS. COMPARISON OF TOTALS THIS YEAR, LAST YEAR, TWO YEARS AGO. WEEK ENDED SATURDAY, FEBRUARY 25, 1921

Districts	Year	Grain and grain products	Live stock	Coal	Coke	Forest products	Ore	Mdse. L.C.L.	Miscellaneous	Total revenue freight loaded		
										This year, 1922	Corresponding year, 1921	Corresponding year, 1920
Eastern	1922	8,919	2,634	46,272	1,780	4,970	764	57,583	58,193	181,115	150,360	173,087
	1921	5,991	2,284	40,019	876	8,061	568	42,612	49,949	158,288	130,874	166,643
Allegheny	1922	3,617	2,614	35,950	3,890	2,519	951	40,922	47,825	137,159	112,155	124,993
	1921	2,173	2,800	41,557	4,653	2,471	2,107	34,770	40,343	117,314	99,993	118,222
Pocahontas	1922	273	75	26,924	217	1,116	25	5,373	3,156	37,159	21,674	31,116
	1921	166	86	13,392	277	1,283	37	3,991	2,442	21,674	11,215	12,493
Southern	1922	3,860	2,188	24,760	553	16,505	497	34,146	34,805	117,314	112,155	124,993
	1921	4,285	1,938	21,659	561	13,561	794	34,642	34,715	117,314	99,993	118,222
Northwestern	1922	11,002	7,915	6,783	1,158	11,130	481	19,540	21,760	79,769	89,767	111,124
	1921	10,561	8,345	5,548	1,326	15,296	941	22,767	24,983	105,946	99,993	118,222
Central Western	1922	13,427	10,181	21,812	298	14,406	886	27,030	27,906	105,946	99,993	118,222
	1921	13,085	9,997	16,298	219	3,775	2,340	26,088	28,191	99,993	99,993	118,222
Southwestern	1922	5,631	2,133	4,946	176	7,058	726	14,563	20,462	55,695	54,819	58,110
	1921	4,871	1,595	4,525	122	6,045	436	14,707	22,518	54,819	54,819	58,110
Total all roads	1922	46,729	27,740	187,447	8,072	47,704	4,330	199,157	214,107	735,286	659,642	783,295
	1921	41,132	27,045	142,998	8,034	50,492	7,223	179,577	203,141	659,642	659,642	783,295
	1920	34,753	28,776	182,913	9,909	60,106	11,831	136,232	318,775	75,644	75,644	75,644
Increase compared...	1921	5,597	695	44,449	38	2,788	2,893	19,580	10,966	75,644	75,644	75,644
Decrease compared...	1920	11,976	1,036	4,534	1,837	12,402	7,501	62,925	104,668	48,009	48,009	48,009
February 25	1922	46,729	27,740	187,447	8,072	47,704	4,330	199,157	214,107	735,286	659,642	783,295
February 18	1922	54,209	30,327	190,700	7,666	50,796	4,034	219,050	224,142	780,924	692,007	772,102
February 11	1922	54,704	30,274	193,377	7,823	52,638	4,015	222,908	222,673	788,412	687,867	786,633
February 4	1922	48,969	27,998	185,151	7,844	50,204	4,015	218,371	211,134	753,886	699,718	762,680
January 28	1922	50,880	32,590	180,966	7,502	47,373	4,007	211,466	208,944	743,728	701,605	803,332



Revenue Freight Car Loadings to February 18, 1922



# Labor Board Begins Hearings on Wage Reductions

J. W. Higgins and J. G. Walber Present Interesting Data on Payrolls in Other Industries

THE MEN DOING WORK comparable to that done by railroad employees and engaged in 5,327 industries in 28 western states, are now receiving wages much lower than those paid to railway workers. This situation was brought to the attention of the Railroad Labor Board on March 7 by J. W. Higgins, executive secretary of the Association of Western Railways, who, on behalf of 101 western carriers, opened the second nation-wide wage reduction controversy before that body. The hearings on proposed wage cuts were scheduled to begin on March 6, but delays due to the necessity for obtaining a large hall in which to hold the sessions and for a roll-call postponed the real opening of the hearings until the following day.

Mr. Higgins' statement was based on information gathered in a long investigation conducted by committees in all the 28 western states whose researches led them into all industries in any degree comparable to the business of railroading. These data, in the form of an exhibit, also include the wages paid in rural communities and on farms in the territory involved.

The survey showed that of the 318,893 employees of all classes studied in other industries, 247,866, or 77.73 per cent, were getting lower wages in December, 1921, than were paid by the railroads for similar service. There are only four states in the west, Montana, Nevada, Oregon and Wyoming, for which the reports show less than 50 per cent of the employees in other industries paid less than railroad wages, and peculiar conditions exist in these four states not found elsewhere in western territory. In 26 principal cities in the west the investigation shows that out of 125,425 employees in outside industries, 98,814, or 79 per cent, are paid less than the railroads pay for similar work.

"Industrial employers declare that the high level of railroad wages is a direct charge upon them," said Mr. Higgins, "that it is paid by them in transportation rates; that the high level of wages on railroads exerts an influence upon, and artificially stimulates wages for men doing like work in their industries which creates friction and dissatisfaction among their forces. I believe this explains to a large extent the business man's attitude toward railroads and railroad rates.

"The railroads are not asking for the low level of pre-war wages. Indeed, the wages I have read into the record show that for most classes the railroads propose scales 50 to 100 per cent higher than those paid in 1915, and from 30 to 70 per cent higher than the level of 1917."

## "Standard" Wage Rates Attacked

Mr. Higgins added that while the roads wish the wages paid to be fair and adequate, it was not believed that the Transportation Act intended a flat rate of wages to prevail throughout the country. Outside industries, he said, never have and do not now pay a flat rate. Furthermore, a flat rate of wages never existed, he declared, in the classes of railroad employees under consideration prior to government control.

The situation, Mr. Higgins suggested, might be met by an order permitting the railroads to pay the going rate of wages, or in any event a rate not less than the preponderant rate paid in the zone for similar work.

"There are great differences in the wages paid by outside industries for the same kind of labor in different parts of the western territory," said Mr. Higgins. "Common labor

in Oregon gets from 31 to 45 cents, while in the central agricultural and industrial states, it receives from 26 to 35 cents, and in Mississippi, Louisiana, New Mexico and Texas, the range is from 10 to 25 cents an hour. Wages for metal crafts also vary as to locations. In the state of Washington the range for machinists in outside industries is from 56 to 75 cents; in Nevada, from 61 to 75 cents; in Illinois, from 41 to 65 cents an hour, and in Mississippi, from 30 to 55 cents an hour."

Mr. Higgins declared with respect to the cost of living that the index figures of the National Industrial Conference Board indicate a downward trend. These figures, he declared, show that the family budget, which includes food, shelter, clothing, fuel and light and sundries, as of February 1, 1922, is 22.9 per cent less than the peak reached in July, 1920.

These figures, Mr. Higgins said, show a remarkable decline in the price of food, which is 43 per cent of the family budget. Food prices for January 15, 1922, show a decrease of 35 per cent from the peak in July, 1920.

In Chicago the investigation disclosed that out of a total of 32,350 employees in other industries whose wages were studied, 24,846, or about 75 per cent, are paid less than railroads pay for similar work. This was shown also as to shop employees and laborers in steel plants at South Chicago, Gary and Joliet.

## Wage Decreases Requested by Western Carriers

The wage decreases requested by the western railroads, represented by Mr. Higgins, may be summarized as follows:

For employees paid on an hourly basis, decreases ranging from four cents an hour to 27 cents an hour have been asked. The present wage of these employees, the wage proposed by the western carriers and the amount of decrease, all in cents per hour, are shown in the following table:

Class of employee	Present wage	Proposed new rate	Decrease requested
<b>Skilled Shop Employees—</b>			
Machinists, boilermakers, blacksmiths, electricians, copper and tin workers, coach and body builders and repairers except on running rep.), loc. carpenters (except on running rep.), pattern makers, cabinet makers, silver platers, wood machine operators (regularly assigned in mills), upholsterers, coach and loc. varnishers, letterers and strikers.....	77	67½	9½
Regular apprentices (trades above).....	34—59	29—54	5
Helper apprentices.....	54—64	40—54	10—14
<b>Other Shop Employees—</b>			
Freight car body and truckmen (steel and wood); tank car body, tank and truckmen (steel and wood); passenger car truck and platform men (steel and wood); air brakemen (freight and passenger); train yard car inspectors (freight and passenger); passenger car running rep. men (outside rep. shops); tender frame rep. men; men on miscellaneous work; freight car painters.....	72	50	22
Carmen helpers, including car oilers and material carriers.....	54	35	19
Carmen helpers, apprentices.....	54—64	35—45	19
Pipefitters, wrought iron and steel pipe work.....	77	50	27
Stationary engineers (electrical).....	77	63½	13½
Mechanics, M. of W., Bridge and Building Departments.....	58	53	5
Helpers.....	44	36½	7½
Boiler room water tenders and coal passers..	35—47	31—42	4—5
Signalmen, leading maintainers, gang foremen, etc.....	78	72½	5½
Signalmen and signal maintainers.....	73	60—67½	5½—13
Signalmen asst., and asst. signal maintainers..	54—68	40—54	14

For employees paid on a monthly basis, decreases ranging from \$10.02 to \$14.28 per month have been requested as indicated in the following table showing the present monthly wage of the employees involved, the monthly wage proposed



by the western railroads and the difference between the present and proposed rates.

Class of employee	Present wage	Proposed new rate	Decrease Requested
Janitors, watchmen, etc.	\$70.00	\$55.72	\$14.28
Office, chore boys, etc.	45.00	30.72	14.28
Bridge and building foremen	125.20	115.00	10.20
Assistants	115.20	105.00	10.20
Track and maintenance foremen	110.20	100.00	10.20
Storekeepers, clerks, 2 years or more experience	101.78	87.50	14.28
Clerks, less than 2 years experience	87.50	73.22	14.28
Stationary engineers (steam)	120.20	108.18	12.02
Stationary firemen and engine room oilers	100.20	90.18	10.02
Callers, gatemen, etc.	93.62	79.34	14.28

For track and common laborers, laborers in the maintenance of way department, laborers around shops, station and platform employees, performing work which requires little or no skill or training and common laborers in station forces now receiving the wages in cents per hour indicated in the following table, the western railroads have requested authority to pay the prevailing rates in the territory employed.

Class of employee	Present wage
Track and common labor, M. of W. Department	28—40
Laborers around shops	31—43
Station and platform employees, station forces	37—49
Common labor	28—40

In addition, authority is asked to pay drawbridge tenders and assistants, now receiving \$75 a month, the prevailing rate in the territory in which they are employed.

The proposed new rate for car cleaners is set at two cents above the rate paid to track labor in the territory in which these employees are working. The present rate of car cleaners is 42 cents an hour.

New rates for inexperienced clerks, based upon length of service, are also requested by the western railroads. Under present rates these employees are paid from \$67.50 to \$77.50 a month, and the proposed new rates range from \$50 to \$70 a month. Similarly, new rates for inexperienced gatemen and callers have been proposed, these rates ranging from \$50 to \$60 a month.

### J. G. Walber Represents Eastern Roads

In presenting the case of the eastern railroads, John G. Walber, executive secretary of the Bureau of Information for those roads, drew attention to the fact that motive power and rolling stock are being maintained for immediate requirements only. "There is an accumulation of bad order locomotives and cars," he said, "which, when business resumes, will have to be put into serviceable condition. This is simply charging against the future that which under normal conditions would have been taken care of currently.

"Since the time when most of the wage conferences were held, the most recently available data on the subject indicate that the cost of living has receded somewhat. Assuming for the sake of argument that the rates of pay established by the board May 1, 1920, were in proper relation to the cost of living then prevailing, the reduction in the cost of living from May 1, 1920, to July 1, 1921, was approximately 20 per cent, as indicated by the governmental and other statistics, yet the reduction in wages effective July 1, 1921, was approximately 11 per cent." Mr. Walber said that exhibits would be introduced showing clearly that the cost of living today is back where it was in 1918. "So far as the cost of living is a factor in determining wages," he declared, "the wages of today should be based upon what the cost of living was in 1918.

"It will be observed from the data placed in detail before the board that for all classes of employees on the eastern railroads (the payrolls of which are approximately 45 per cent of the entire country for the classes affected) the saving effected as a result of the reduction in rates of pay heretofore ordered by the Railroad Labor Board amounted, in the aggregate, to 11.2 per cent, or \$6,923,015.72 a month, and that the saving effected by the changes in rules and working

conditions heretofore promulgated by the labor board amounted, in the aggregate, to 1.2 per cent, or \$748,333.87 a month. In other words, the total saving effected on the eastern railroads as the result of the wage reduction heretofore ordered by this board, plus the saving effected on those roads as a result of the modification of rules and working conditions ordered by the labor board amounted, in the aggregate, to not more than 12.4 per cent, or \$7,671,349.59 a month."

Mr. Walber also submitted an exhibit showing the result of an investigation on the eastern railroads of comparative wage schedules as paid in outside industries and paid by the railroads for comparable labor in more than 3,700 plants and 988 communities in eastern territory. For ordinary unskilled labor comparable to railroad labor in shops, round-houses, etc., this exhibit shows that of 36,865 such employees in outside industries, only 575 received rates of pay equaling or exceeding the prevailing rate of 41 cents an hour paid by the railroads, but the average rate for these outside industries was 30 cents an hour. For car repairmen comparable with rough painters, scourers, primers, etc., of which there were 11,292 employed in the outside industries above referred to, only 143 received rates of pay equaling or exceeding the railroad rate of 72 cents an hour, but the average for such labor was 48.8 cents an hour. For machinists, of whom there were 42,159 in the outside industries studied, only 650 received rates equaling or exceeding the railroad rate of 77 cents an hour, but the average rate paid in the outside industries was 56 cents an hour.

"We submit," said Mr. Walker, "that it is to the greater interest of the railroad employees and the public in general that the employees be placed upon a basis which will permit of working the maximum forces, so providing employment for the greater numbers, increasing the consuming public and in that way contributing to the general revival of business.

"The extent to which the readjustment in other fields has already progressed is strikingly illustrated by the deflation which has thus far taken place in the wholesale prices of commodities. The data compiled by the United States Department of Labor indicate that the highest level of wholesale prices was in May, 1920, when, as related to the average prices of 1913 as the 100 base, the index number of 272 was reached. Since that time there has been a constant recession in prices so that on January 1, 1922, the index number of 148 had been reached; in other words, a decline of 124 points or a reduction of approximately 45 per cent from the May, 1920, peak. It is interesting to note that the deflated level at the present time corresponds with the level prevailing in December, 1916.

"It was natural that the manufacturers and other representatives of the shipping public should feel that as their industries had been undergoing the process of readjustment, and as the railroad industry was still operating on the basis of war time costs, plus the increase in the cost of their labor resulting from decisions of the labor board, the railroad industry should also contribute toward the readjustment. The rates of pay which the railroad industry is paying are public information, and it was only natural that outside industries should make comparisons between the rates which they pay their employees and those which the railroads are paying. The public generally, including wage earners in other industries, should not be called upon to pay transportation charges based on an inordinately high level of railroad wages."

### E. J. Manion Protests Wage Cut Negotiations

Immediately following the roll-call, E. J. Manion, president of the Order of Railroad Telegraphers, injected a protest against the manner in which the disputes over wage scales were handled by the railroads. He charged that rep-

representatives of the carriers had informed the members of his organization during their negotiations that wage reductions were being proposed in order to pass along the savings made therefrom to the public in the form of lower freight rates instead of to establish just and reasonable wage levels. In support of this position he pointed out the rate increases authorized by the Interstate Commerce Commission to take care of the wage increase of July, 1920, the subsequent decreases in both rates and wages and added that "the transportation industry is the only inflated industry in the country today and it should be deflated before more is taken away from the lower paid employees now before the Board." The regional negotiations between the carriers and the train service brotherhoods were characterized by Mr. Manion as "petting parties," the inference being that those classes of employees now before the Board are being discriminated against by the railroads.

#### Labor Leaders Threaten to Delay Hearings

Before Mr. Higgins began his presentation on behalf of the western carriers, B. M. Jewell, president of the Railway Employees Department of the American Federation of Labor, and Martin Ryan, president of the Brotherhood of Railroad Carmen, threatened to delay the hearings by their protests against the conferences which preceded the submission of the wage controversy to the Board. However, Judge R. M. Barton, chairman of the Board, ruled that the hearings should continue, the objections made by these labor leaders to be considered in connection with each dispute as it came before the Board. In addition, Mr. Jewell had previously asked for permission to examine the representatives of several carriers as a preliminary to the actual taking of testimony. After considerable argument as to the procedure to be followed in presenting this case to the Board and the relevancy of his request, Mr. Jewell was allowed to question representatives of the New York Central, the Western Maryland, the Chicago Great Western, the Michigan Central, the Pere Marquette, the Bangor & Aroostook, and the Cleveland, Cincinnati, Chicago & St. Louis as to the extent of their contracts for the operation of shops and the wages and working conditions of employees in contract shops. In each case the representative of the carrier admitted that certain shops were being, or would be, operated under a contract arrangement, but none of the employees in these shops were included in the requests for wage reductions.

The charge of "petting parties" between the carriers and the train service organizations came up again on March 7 when W. L. McMenimen, labor member of the Board, asked Mr. Manion, sponsor of the charges, if he had not sought "a bid" to these "parties." Mr. Manion replied that he had and "got turned down flat." He added, however, that this constituted the best evidence of discrimination.

#### Industrial Wages in Western

##### States Below Railroad Wages

The remainder of the session on March 7 was taken up with the presentation of evidence by various railroad officers who had acted as state chairmen in gathering the mass of information filed with the Board by Mr. Higgins. These witnesses outlined the manner in which the information was gathered and presented statistics showing that in certain western states from 60 to 90 per cent of the employees in other industries performing work comparable to railroad work were receiving wages lower than those paid by the carriers.

Representatives of the four train service brotherhoods and a committee representing the western railroads and headed by William Jeffers, general manager of the Union Pacific, are still in session at Chicago considering wages and working conditions. These conferences are in line with the policy of both parties to carry on negotiations on a regional basis as was done prior to federal control.

#### J. W. Higgins Asks for Graduated

##### Wage Scale for Shopmen

In summing up the testimony presented to the Board by the various state chairmen, Mr. Higgins asked for a graduated scale of wages for shop employees performing work which does not require the services of skilled mechanics. He said in part:

"I want to point out that our evidence shows conclusively that in every city and state in western territory the great bulk of shop work is performed in outside industry at lower rates than the railroads pay and that much of the rougher shop work for which railroads now pay mechanics' rates is performed in outside shops by specialists, handymen or second-class mechanics at much lower rates than the mechanics receive, and a great deal of it at rates lower even than those we are now offering helper and regular apprentices in the last year of apprenticeship. The consideration that the western roads ask the Board give this situation is this—that in its decision, permit the railroads to adjust, with the men, the rates for such positions, or that it name rates for those positions requiring less skill that are more nearly in accord with the rates paid for similar work in outside industries.

"The western railroads want the 67½ cent rate to supplant the 77 cent rate for skilled shopmen, that is, first class journeymen mechanics; they also want and earnestly request that this Board not impose higher rates for less skilled positions than the rates paid by industries in contiguous territory, nor do they want to be compelled, through classification of work, to use the skilled journeyman mechanic on the rougher and lower grades of work. They ask that this Board fix rates for these lower grades more nearly comparable with the rates paid for like work in other industries in contiguous sections. In other words, they ask that the Board, after fixing the minimum rate for skilled journeymen mechanics, fix rates at a lower level for the lower grades of work, specifying the kind of work and the rate that would be paid for such work and fixing the rates so they will fall within the spread between the minimum rates for skilled journeymen mechanics and the maximum rates for regular and helper apprentices—for example, between the 67½ cent per hour rate we are proposing for skilled journeymen and the maximum 54 cent rate we are proposing for regular and helper apprentices."

The remainder of the Board's sessions on March 8 were taken up with the presentation of evidence by the chairman of western State and city committees who had supervised the gathering and compilation of the data regarding wages in other industries. In addition, representatives of several western carriers made separate representations outlining conditions peculiar to their properties.



White Creek Bridge, Fraser Canyon, on the C. P. R.



## Labor Board Announces

### New Rules for Telegraphers

**A** NEW SET of rules to govern the working conditions of telegraphers, telephone operators (except switchboard operators), agent-telegraphers, agent-telephoners, towermen, levermen, tower and train directors, block operators and other similar employees, was announced by the Railroad Labor Board on March 4. The outstanding features of the new code, which becomes effective March 16, are the provisions for the payment of punitive overtime after the ninth consecutive hour of service, the provision permitting the employment of "split tricks" at one-shift offices provided the actual tour of duty of eight hours comes within a spread of twelve hours, the provisions giving regularly assigned telegraphers a guarantee of one day's pay within each 24 hours, and the provisions prohibiting the employees covered by the new rules from carrying United States mail and parcels post where this work becomes "unduly burdensome" and from attending interlocking or switch lights except to see that they are kept burning.

The rules in this new "national agreement" covering the basic eight-hour day, intermittent service, overtime, punitive payments for calls and free transportation are similar to those which have already been granted by the Board to cover other classes of employees and described in previous issues of the *Railway Age*. The intermittent service rule, giving the carriers the right to employ men on "split tricks" without punitive payments is exactly the same as the rule recently given to the clerks and firemen and oilers and reproduced in the *Railway Age* of January 28, page 277. The overtime rules provide for the payment of punitive overtime after the ninth hour of consecutive service, and the call rule provides for the payment of a minimum of three hours for two hours' work or less when the service performed is not continuous with the regular tour of duty.

#### Other Rules in the New Code

The remainder of the rules in this new code include the following:

**Rule 1. Scope.**—This schedule will govern the employment and compensation of telegraphers, telephone operators (except switchboard operators), agent-telegraphers, agent-telephoners, towermen, levermen, tower and train directors, block operators, staffmen, and such agents as may be included by the operation of the second paragraph of this rule, and will supersede all previous schedules, agreements and rulings thereon.

The disputes as to what exclusive agents shall be covered by the rules are remanded to the representatives of the parties on the individual carriers for further negotiation.

**Rule 6. Meal Period.**—Where but one shift is worked, employees will be allowed 60 consecutive minutes between 11:30 and 1:30 o'clock day or night for meal.

If the meal period is not afforded within the allowed or agreed time limit and is worked, the meal period shall be paid for at the pro-rata rate; and 20 minutes, with pay, in which to eat shall be afforded at the first opportunity.

**Rule 7. Starting Time.**—Regular assignments shall have a fixed starting time and the regular starting time shall not be changed without at least 36 hours' notice to the employees affected.

Where three consecutive shifts are worked covering the 24-hours period no shift will have a starting time after 12 o'clock midnight and before 6 A.M.

**Rule 8. Sunday and Holiday Work.**—Employees will be excused from Sunday and holiday duties as much as the condition of business will permit.

Time worked on Sundays and the following holidays—namely, New Year's day, Washington's birthday, Decoration day, Fourth of July, Labor day, Thanksgiving day, and Christmas (provided when any of the above holidays fall on Sunday, the day observed by the state, nation, or by proclamation shall be considered the holiday), shall be paid for at the regular hourly rate when the entire number of hours constituting the regular week-day assignment are worked.

When notified or called to work on Sundays and the above specified holidays a less number of hours than constitute a day's work

within the limits of the regular week-day assignment, employees shall be paid a minimum allowance of two hours at overtime rate for two hours' work or less, and at the regular hourly rate after the second hour of each tour of duty. Time worked before or after the limits of the regular week-day assignment shall be paid for in accordance with overtime and call rules.

**Rule 9. Basis of Pay.**—All employees herein specified will be paid on hourly basis.

**Rule 10. Guarantee.**—Regular assigned telegraphers will receive one day's pay within each 24 hours, according to location occupied or to which entitled, if ready for service and not used, or if required on duty less than the required minimum number of hours as per location, except on Sundays and holidays.

This rule shall not apply in cases of reduction of forces nor where traffic is interrupted or suspended by conditions not within the control of the carrier.

**Rule 11. Discipline—Pay for Time Lost.**—If the final decision decrees that charges against the employee are not sustained the record shall be cleared of the charge; if suspended or dismissed, the employee will be returned to former position and paid for all wages lost less amount earned in any other service.

**Rule 12. Suspension of Work During Regular Hours.**—Employees will not be required to suspend working during regular hours or to absorb overtime.

**Rule 14. Classification of Employees, New Position, etc.**—Where existing pay roll classification does not conform to Rule 1, employees performing service in the classes specified therein shall be classified in accordance therewith.

When new positions are created compensation will be fixed in conformity with that of existing positions of similar work and responsibility in the same seniority district.

**Rule 15. Attending Court—Witnesses.**—Employees taken away from their regular assigned duties, at the request of the management, to attend court or to appear as witnesses for the carrier will be furnished transportation and will be allowed compensation equal to what would have been earned had such interruption not taken place and, in addition, necessary actual expenses while away from headquarters. Any fee or mileage accruing will be assigned to the carrier.

**Rule 16. Handling Train Orders.**—No employees other than covered by this schedule and train dispatchers will be permitted to handle train orders at telegraph or telephone offices where an operator is employed and is available or can be promptly located, except in an emergency, in which case the telegrapher will be paid for the call.

**Rule 17. Handling United States Mail.**—When the carrying of the United States mail and parcels post by the employees herein specified becomes unduly burdensome, or interferes with the proper operation of trains, they will be relieved from such work.

**Rule 18. Handling Switches, Attending Switch Lights, etc.**—At stations where section men reside or porters or helpers are employed, employees as per Rule 1 will not be required to attend interlocking or switch lights, but will see that they are kept burning.

At stations where employees as per Rule 1 are required to care for interlocking or switch lights they will be allowed 75 cents per light per month, with a minimum of \$3 for four lights or less.

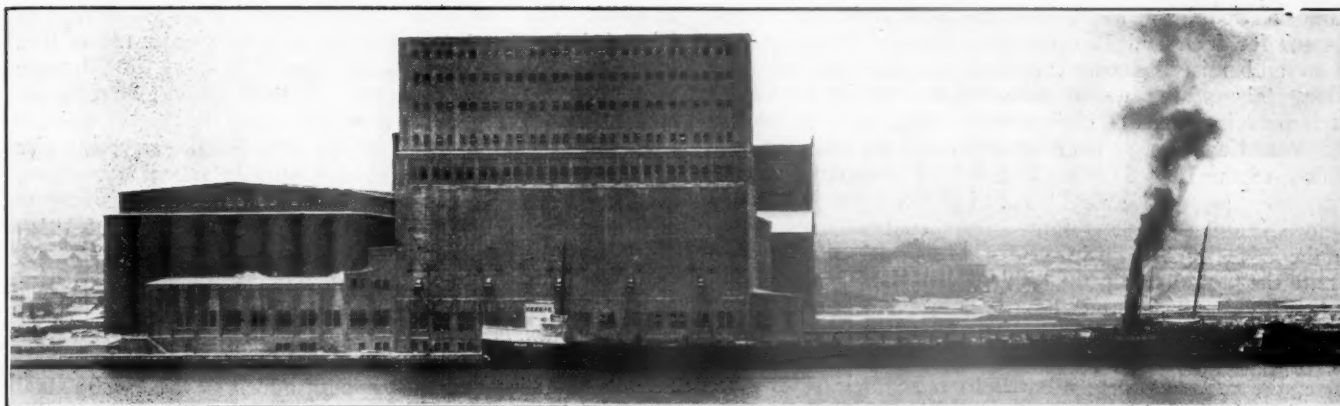
**Rule 19. Regular Assigned Men Doing Extra Work.**—Regularly assigned telegraphers will not be required to perform relief work except in cases of emergency and when required to perform relief work, and in consequence thereof, suffer a reduction in the regular compensation, shall be paid an amount sufficient to reimburse them for such loss, and in all cases they will be allowed actual necessary expenses while away from their regular assigned stations.

**Rule 20. Express and Telegraph Commissions.**—When express or Western Union commissions are discontinued or created at any office, thereby reducing or increasing the average monthly compensation paid to any position, prompt adjustment of the salary effected will be made conforming to rates paid for similar positions.

Rules governing seniority, promotions, discipline and grievances and vacations and sick leave with pay and "certain other subject matters in dispute" are remanded to the individual carriers and their employees "for the purpose of adjustment under the provisions of Section 301 of the Transportation Act."

THE "E. D. & B. C." (the Edmonton, Dunvegan & British Columbia Railway) has brought to Edmonton, Alberta, during the past six months about 1,500,000 bushels of wheat, oats and barley from Peace River and Grande Prairie districts; 718,624 bushels wheat, 676,983 bushels oats, and 100,699 barley, or a total of about 900 cars, or, say, 35 cars a week.





A Government Railway Elevator

# Problem of the Government Railways in Canada\*

Large Deficit in 1920 Has Led to the Investigation of Expenses,  
Operation and Management

By W. T. Jackman

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AT THE TIME of the acquisition of the Canadian Northern in 1917, through the purchase of the remaining \$60,000,000 of common stock, the government declared its intention of operating this property, for the time being, through the corporate machinery by which it had been operated previously, but under a reorganized board of directors named by the government and free from political influence or interference.

In June, 1919, the Canadian National Railways Act was passed, providing for the administration of all railways that had been or might be acquired subsequently by the government, under a Canadian National Railways Board, to be appointed by the governor-in-council, but although two years have elapsed this board has not yet been formed. Consequently, the management of the former Canadian Northern is still carried on by the old operating staff under a reconstituted directorate. For operating purposes there was added to this railway system the lines of the Intercolonial, the National Transcontinental and the Grand Trunk Pacific, the latter of which has been in the hands of the minister of railways as receiver since March 9, 1919.

## Deficit of \$70,000,000 In 1920

The financial results of the management of this system show that for the year 1919 there was a deficit in operating expenses and fixed charges amounting to \$48,242,536, while for the year 1920 the corresponding deficit was almost \$70,000,000. These figures do not take into account any interest on the capital of the National Transcontinental and the Intercolonial. To add \$12,000,000 for the interest on the capital of these lines would bring the deficit up to \$82,000,000 for the government-owned railways; but as the capital for these roads was furnished by the government and interest payments therefore would be made by one branch of the government to another, we may neglect this item entirely. A deficit of \$70,000,000, however, calls for explanation and when we note that the deficit of 1920 was almost 50 per cent greater than that of the previous year we have a condition which demands serious attention.

With these facts placed before the country there was an

insistent demand in Parliament for an investigation of the affairs of these railways. This, together with the fact that the operation of the Canadian government merchant marine was not satisfactory either financially or otherwise, led to the organization of a Committee on Canadian National Railways and Shipping, composed of members from the three parties in the House to inquire into:

1. What information as to the government railways and marines should be given to Parliament, and when and how such information should be given.
2. What system of auditing should be adopted and what details should be given in the annual report.
3. What, if any, improvement could be made in the general plan of management.
4. Whether and for what purposes this committee should be continued.

As will be noted from the terms of reference, there was much contention as to what information should be given to the public. Some were opposed to making public anything more than the main outstanding facts; others considered that, since the people have to finance the railways, complete details should be placed before them as to the methods and results of operation. The chief objections urged by members of Parliament to giving full information to the people were: first, that in this way the railways would become, as the Intercolonial has been, the football of politics, and second, that thereby all the facts would get to the Canadian Pacific and would be used by the latter against its rival, the government-owned system. These difficulties, especially the latter, were given little attention by the management of the government system. To the latter the important reason why certain things should not be made public was because it would make the administration of the national lines much more difficult, when past contracts were made and prices paid, as well as proposed future business, were laid open to the eyes of all.

## Reasons For Deficit

It is desirable to note the chief reasons for the increasing railway deficit, as these were brought out in the course of the investigation.

1. *High wages.* For every dollar earned by the Ca-

\*This is the first of two articles on this subject. The second will appear in an early issue.

nadian National Railways, 75 cents were spent for wages, 20 cents for fuel, and 29 cents were required for other materials and miscellaneous expenses in order to earn the dollar. These high wages were due to certain conditions which prevailed in the United States and were made applicable to Canadian railway labor. In 1918, after the government of the United States had taken control of the railways, the "McAdoo award" raised the wages of railway employees, and this was followed by 23 supplements to adjust the wages of the men in the different trades, which added more to the payrolls than the original award. Then in 1920, after further agitation on the part of labor, the "Chicago award," made in September, raised the wages of labor still more and rendered this increase retroactive to May 1. Of course, the railways were allowed to raise their rates after September, but as this was not retroactive the extra wages given from May 1 to that date were equivalent to a hand-out to the men, for which the railways received no return.

To show the extent to which wages have been increased for the various classes of railway labor, the following table of schedule rates of pay is given. It must be emphasized here that these do not include allowances or overtime rates, which have been a source of enormously high wages in many cases without any compensating return to the railways.

Class of employee and rate	Per cent increase						
	1917	1918	1919	1920	1918 over 1917	1919 over 1917	1920 over 1917
Sectionman, hour....	\$0.19	\$0.25	\$0.40	\$0.48½	31.6	110.53	155.26
Machinist, hour.....	0.37	0.68	0.68	0.85	83.8	83.8	129.7
Agent, Teleg., month.	66.00	85.00	111.00	125.00	28.8	68.2	89.4
Conductor, passenger, 100 miles.....	2.90	3.35	4.00	4.67	12.1	37.9	61.0
Conductor, freight, 100 miles.....	4.00	4.82	5.40	6.44	20.5	35.0	60.1
Brakeman, passenger, 100 miles.....	1.60	2.23	2.66	3.33	39.4	66.2	108.1
Brakeman, freight, 100 miles.....	2.67	3.72	4.08	5.12	39.3	52.8	91.8
Engineer, passenger, 100 miles.....	4.11	4.57	5.60	6.40	11.2	36.2	55.7
Engineer, Freight, 100 miles.....	4.53	5.23	6.08	7.12	15.4	34.2	59.4
Fireman, passenger, 100 miles.....	2.50	3.15	4.00	4.80	26.0	60.0	92.0
Fireman, freight, 100 miles.....	2.85	3.69	4.24	5.28	29.4	48.8	85.3

From this table it will be observed that the unitary rate of wages increased in 1920 over that of 1919 by very large percentages. For instance, for sectionmen the increase was roughly 45 per cent; for machinists, 46 per cent; for conductors, 25 per cent; for brakemen, 39 to 42 per cent; for engineers, 19 to 25 per cent; and for firemen, 32 to 36 per cent. But these figures fail to tell the whole story. Before the "McAdoo award" the total yearly wages paid on the Canadian National Railways were \$43,265,881.79. The 23 supplements to that award increased this by \$13,013,954.92. The increase due to the "Chicago award" was \$16,390,895.58. Thus the pay-roll per annum was increased from \$43,265,881 as at June 30, 1918, to \$81,347,880 in 1920; in other words an increase of 88 per cent in two years. This does not take into account the increase in labor that was required to handle the increased business, nor a lot of the overtime conditions which, because they changed from time to time, it was impossible to figure. Moreover, under the retroactive features of the "Chicago award" a gift of \$4,831,385 had to be made to the men.

2. *High cost of fuel and other materials.* As we have said, 20 per cent of all earnings had to go for fuel. The average price paid for coal during a succession of years may be set down as follows:

In 1916 average price \$3.65 per ton for Canadian Northern System.  
 In 1917 average price 4.45 per ton for Canadian Northern System.  
 In 1918 average price 6.00 per ton for Canadian Northern System.  
 In 1919 average price 6.20 per ton for Canadian National Railways.  
 In 1920 average price 7.40 per ton for Canadian National Railways.

The total increase in the fuel cost of 2,800,383 tons at an average price of \$6.20 per ton in 1919 and 3,066,344 tons at an average price of \$7.40 per ton in 1920 would be \$5,-

328,571. The cost of ties also increased from an average of 83.4 cents to 91.6 each, and this, with the greater use of ties, made the expense bill for ties in 1920 \$312,798.90 more than that of 1919. The cost of most other materials increased even more than that of ties.

Leaving out of account, for the time being, everything else than wages, from what we have already shown concerning the vast increase in the amounts paid for labor, it is easy to account for the increased deficit in 1920 over that of 1919. For if we take the increase in the wage bills in the two years, from \$43,000,000 to \$81,000,000, or an average yearly increase of \$19,000,000 and add to this the amount of the retroactive payment under the "Chicago award," namely \$4,800,000 which is a payment for the year 1920, we shall get \$23,800,800; and this amount added to the \$48,000,000 deficit of 1919 will make up that deficit to over \$70,000,000 for 1920. It is evident, then, that the increase of wages alone is sufficient to account for the increased deficit noted.

But it is thought by many that the increased rates granted to the railways were enough to compensate for the higher wages paid to labor. What were these increases? On December 1, 1916, there was allowed a freight increase of 5 per cent on lines east of the Great Lakes, but no increase on the Western lines. In March, 1918, there was an increase of 15 per cent on all lines. In August, 1918, there was an additional increase of 10 per cent. On September 13, 1920, there was an increase of freight rates of 40 per cent on the eastern lines and 35 per cent on the western lines. But there were a great many commodities to which the increased rates did not apply, and the average increase on the Canadian National System was only 27.45 per cent. This increase in rates was not proportional to the increased costs of labor and materials. Then on January 1, 1921, these rates were automatically reduced 35 per cent on the eastern lines and 30 per cent on the western lines, and the new average yield to the National system was 23.22 per cent. It is manifest, therefore, that the net increase of rates was much less than the gross increase would imply.

3. Another reason for the great deficit of 1920 was the large amount of deferred maintenance charges, and all these were charged to operating expenses, not to capital. During the four years of war a great amount of the expenses for maintenance-of-way and structures and for maintenance of equipment was necessarily postponed, and then when the war was over there had to be much greater expenditures to bring the property up to the operating standard, so as to be in a position to compete with other lines operating through the same country. Then, on the prairies, a large proportion of the lines was originally laid with 60-lb. rails, and with the growth of traffic on some of these lines it has been found desirable to use heavier cars and locomotives, which, in turn, has necessitated replacing the light steel rails with rails of 80 lb. or 85 lb. Of course, part of this expense for heavier rails could be charged naturally to capital. The following comparison of expenditures for the years 1919 and 1920 is instructive:

	1919	1920	Total increase	Per cent increase
Maintenance of way and structures.....	\$28,476,450	\$34,759,329	\$6,282,879	22.06
Maintenance of equipment....	19,950,409	27,963,511	8,013,102	40.15

This increase of \$14,000,000 in the maintenance of the properties and facilities of the National lines for one year represents a heavy drain upon earnings, and, taken in connection with the very high wages and costs of materials and fuel, must have been a potent cause leading to the financial deficit. Then, too, at the close of the war there was a general feeling that public expenditures should not cease immediately, but, on the contrary, should be continued for some time; and acting upon this the directors of the National railways recommend to the government a program of betterments which would improve greatly the position of this sys-



tem from a competitive standpoint. The government acquiesced in these expenditures and the management set to work to develop the property to enable it to provide good service for which everybody was clamoring. This policy provided work for many who would be otherwise without it, and possibly the scale of betterments undertaken was altogether too liberal for the revenues of the lines, though not too generous for the building up of the property as a competitor of the Canadian Pacific.

### Political Background

Some have thought that one reason why the National Railways have not paid was because political interference had already become evident in the affairs of the system, and it has openly been stated by at least one of the papers friendly to the government that "the pretense that these railways are now free from politics deceives nobody." To this statement the management of the system gives a categorical denial. The vice-president in charge of operation and maintenance was asked concerning the appointment, promotion or transfer of an officer, "Have you ever been influenced by any person or from any quarter other than your own judgment as to what was in the best interests of the service?" His answer was, "No, I have not." The president was asked, "In the employment of your men, are you approached frequently by members of Parliament or members of the government, or are you being given a free hand, or are you being embarrassed?" His answer was: "We are not the slightest embarrassed at all. Of course, I have got letters." He plainly states that the management of the road is not prejudiced by political intervention even to the slightest extent, and that there is no over-manning of the system by red tape and duplication. It is acknowledged that those who are responsible for the administration of these railways receive letters from members of Parliament offering suggestions as to employees, etc., although not to any extent.

Another viewpoint, however, is presented by one of the board of directors who has stated that, "Until the millennium comes I don't see how it is possible for governments to own railways anywhere in the world without political influence creeping in somewhere." He acknowledged that thus far he had seen nothing of this kind in connection with the National Railways, but that the possibility of it is always present and that he could see no way of getting rid of it. So long as the government appoints the board of directors and can dismiss any or all of them at any time and put others in their place—so long as it can remove any of the officials of the system and substitute others—there will be suspicion in the public mind that the management is not given a free hand. Whether there shall be much or little interference on the part of the government will depend largely on the personnel of the directors and to a less degree on the needs of the railways.

### Other Rumors of Influence

There is also the impression in the country that the board of directors of the National Railways is too closely related with other interests to be able to see the welfare of the railways in an impartial way. It would be unnatural that a director of the railways, who was at the same time a director of a railway equipment concern, should not want the railways, when in need of rolling stock, to purchase from the manufacturing firm of which he was a director. It is not necessary that he should profit financially by such a transaction in order to want it consummated; directors are honored according to the success they have had in the administration of corporate enterprises and if they can make their connections in a business way contribute to the up-building of the respective concerns of which they are directors who shall say that it should not be done?

On the board of directors as at present organized there are

members who are also presidents, vice-presidents or directors of 48 other companies, and many of the latter are in position to sell to the National Railways large amounts of the materials and equipment which they would require. We must not be understood as giving any credence to the statement that these relations are made effective in this way; in fact, one of the vice-presidents of the National System denied absolutely that there were any preferred relations between the railway management and the companies which had some of the same directors.

In purchasing supplies the almost universal rule was to call for tenders and the lowest tenderer invariably received the order so long as quality, deliveries, etc., were acceptable. The words of the president are amply confirmatory of this. He said: "The railway company buys everything by tender . . . And I am very sorry that it is so . . . because I think we get it in the neck very often, in regard to our prices. . . . Under the old conditions when we were carrying on as a private corporation we rarely appeared in print as to tenders for this, that and the other thing. It is human nature . . . that when we call for tenders for ties . . . materials . . . that a few of them get together and say, 'Now, they are bound to buy these ties. We cannot all get the contract, but we can fix the price so that we will all be in it somewhere before we get through.'"

This acknowledgment that the public railway system, by buying rolling stock, material and supplies by tenders, frequently paid higher prices than were paid when the Canadian Northern was operating as a private concern, accords entirely with the statements of an officer of the Canadian Pacific who said: "No, we do not (advertise for tenders). We do not think it is wise. It has only one advantage, that is of raising the price to the purchaser . . . because the moment the manufacturers find out the railway is in the market for a large quantity of material, they immediately meet and . . . raise the prices." The system of the National Railways in advertising for tenders is evidently not so economical as the Canadian Pacific system of purchasing through private or personal negotiation, but it has the advantage of carrying on the purchasing in the open market without any ostensible favoritism.

But while, perhaps, it cannot be said with truth that other companies profited from the publicly-owned railways through the community of directors, the words of President Hanna in this connection are well worth pondering: "I should say that under a new administration it would be better for everybody who had anything to do with the National Railway to eliminate themselves from anything else but the National System." If this were done there would be some radical changes both in the directorate and the management, for even some of the latter have very close connections with the corporate life of the country. On the other hand, if, as so many assert, the important thing is to secure a "business administration" by "good business men," it will be impossible to dissociate these railways from the country's industrial, commercial and financial interests.

### Contrast With Canadian Pacific

The question has been asked, Why should the Canadian National Railways show a large deficit in 1920 when the Canadian Pacific, subject to the same external influences, paying the same rates of wages and charging the same tariffs for freight and passengers, was able to pay all its operating expenses and fixed charges and have a good balance for the payment of dividends to its stockholders? The answer to this question given by the vice-president of the Canadian National Railways in charge of finance is as follows:

The Canadian Pacific runs through a well-developed territory, while the Canadian National lines are in a large measure pioneer roads put through sections which have only recently been opened up. Consequently, the Canadian

Pacific has a much larger volume of business and when its greatly increased working expenses are spread over a larger tonnage the unitary expense of operation is correspondingly reduced and so the net earnings are maintained or increased.

The Canadian Pacific can also concentrate its traffic into heavier train loads and in this way reduce the actual movement expenses. For instance, its average freight train load in 1920 was 529 tons, while that of the National System was only 383 tons. This was possible because of the much larger traffic density on the private line, which was 1,207,269 tons, as compared with 588,359 tons on the government system. Similar advantages for the Canadian Pacific are found in the passenger business. Its passenger density (that is, the number of passengers carried one mile per mile of line) was 132,233 as compared with 54,075 on the National lines, and the average length of journey per passenger was 102.45 miles as compared with 58.66 miles on the National System.

As a result of these conditions of more economical operation on the Canadian Pacific, its passenger train earnings per train mile were \$2.81 as compared with \$1.73 for its competitor, and its total passenger train earnings per mile of road were \$4,844.78 as compared with \$1,857.77 for its competitor; while the freight earnings per train mile were \$5.50 and the freight earnings per mile of road were \$11,072.83 on the Canadian Pacific as against \$3.76 and \$5,763.27 respectively on the National lines. The heavier train loads on the Canadian Pacific, which can be carried at very little more expense than the lighter train loads of the National system, give a financial economy to the former which is impossible at present to the latter, and is a large factor in making the difference between operating profit and operating deficit. In the words of the above-mentioned official, this is "the whole story."

We are inclined to disagree with the latter statement. It takes more than merely physical operating conditions to make the difference between profit and loss. The clientele which has been built up gradually through the rendering of good service to the public; the allegiance of the whole staff to the directing minds; the pride in the success of the organization—these and many related factors must also be taken into consideration in showing why the Canadian Pacific has been able to meet successfully the recent and present emergency and to show its favorable operating results. In partial extenuation of the unfortunate results on the Canadian National System we must keep in mind that this system maintains and operates a transportation network equal in mileage to the Canadian Pacific, with practically one-half of the traffic, and as the overhead costs relatively to the traffic are necessarily greater the cost of maintenance is likewise very much greater.

#### Attitude of Government and Management

What has been the attitude of the management and of the government towards these annually increasing deficits on the National lines? The fact that the government appointed a committee to inquire into this railway system would seem to indicate that it was very much alarmed at the results, particularly of the last year. But when we look closely at the subjects into which the committee was to inquire there is nothing in the reference to indicate that the government was at all disturbed over the financial condition of the system.

The minister of railways, in making his annual report, said: "I hope I have made it clear that the result of the operation of the Canadian National Railways was not worse than obtained generally on the other side of the line (United States) and overseas (England). . . . Notwithstanding the dark side I have shown, I am still a firm believer in the ultimate success of our National Railways. But . . . success depends on how they are managed." Then he declared that the solution of the problem was to have a conference of the

management and employees in order to reduce wages so that freight rates might be reduced, without which the future advancement of the country would be interfered with.

In other words, his policy was to put the whole problem before the management and have them solve it by wage reductions.

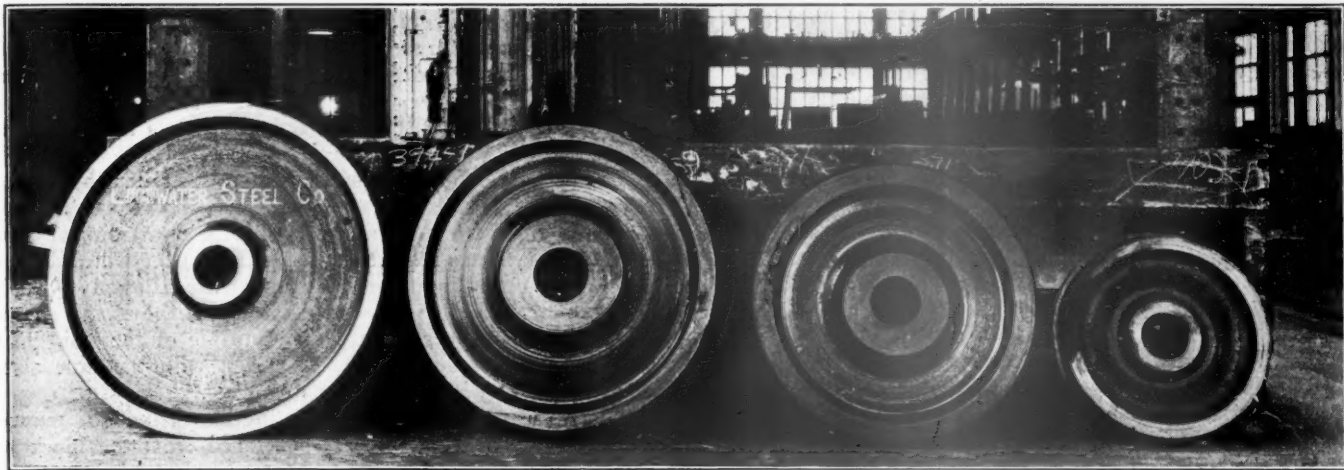
Some other members of the government considered that this was a serious matter and that both sides of the house should get together to find a solution of it. But behind all such declarations there seemed to be an attitude of something like indifference, as if they would say: "This is a bad situation, but in a few years when the country grows up this condition will change and everything will come out right in the end." On the part of the management there seemed to be a well-defined conclusion that "the indirect benefit which the country is receiving from the National System will in a large measure offset the temporary loss that the country is suffering in the deficit," but just what the "great many indirect benefits" are was not stated.

Time would be necessary in order to overcome these deficits, for the country would have to grow up to the measure of its transportation facilities before these railways could be put upon a satisfactory basis. The gradual improvement of the system and the progressive development of the country through which these lines run, with the consequent increase of traffic were the ameliorative factors which were emphasized to bring the system out of its condition of chronic deficits and place it upon a firm foundation. But in order to increase the volume of business it was considered necessary that the public should begin to realize that the National System is owned by the people, that it is dependent upon them for traffic and that their co-operation is absolutely necessary for the success of the enterprise.

One of the directors said: "My conviction is there can be no real success for the government railways until the people of Canada thoroughly realize that they are the shareholders and own the road. They do not realize that now." The same viewpoint was expressed by one of the vice-presidents: "I do not think that the people of Canada as a rule appreciate that they own a National System, and if that were thoroughly understood I think that the needs of the National System would largely be taken care of." Even the president had to complain that he "would like to see a better appreciation of the fact that we have a government road" and that the people "fail to give to their own property that consideration that we have every right to expect"; in fact, he "found that in certain sections there is an indifference, and people do not care whether things go well or not." Members of Parliament, the government and its departments, and private citizens made their shipments, sent their telegrams and traveled by the Canadian Pacific when the same facilities and service could be secured by the publicly-owned agencies. If this were at all general, it is not surprising that the management felt "very hot about it." The officials of the National System did not want all the business to go by their lines; they did not want to do anything to injure such a great national institution as the Canadian Pacific. All they wanted was a chance to compete on an even basis with their great rival.

RAILWAY ASSESSMENTS in New Jersey, as affirmed by the Supreme Court on February 21, are reduced materially. About three millions is taken off the valuation of shore-front property of three roads in Hudson County. The local valuations were appealed by the railroads to the County Board, which refused to make any reduction. The reductions by the state board were as follows: Central Railroad, \$16,145,505 to \$14,645,505; Lehigh Valley, \$7,614,545 to \$6,330,487; Pennsylvania, \$6,179,200 to \$6,174,200. The Erie assessment stands at \$1,404,200, the amount fixed by the local assessors.





Four Sizes of Wheels Rolled on the Same Mill; Right to Left, a 33 in. Freight Car Wheel, 44 in. and 50 in. Trailer Wheels and a 53 in. Special Wheel.

## Rolled Steel Trailer Wheels for Locomotives

Edgewater Steel Company Produces Large Sizes for This Purpose  
—Method of Manufacture

**D**URING RECENT YEARS rolled steel wheels have come into extensive use where steel tired wheels were formerly employed. The latest example of this tendency is found in the application of special rolled steel wheels on the trailing trucks of locomotives. These wheels have been developed by the Edgewater Steel Company of Pittsburgh, Pa., at the suggestion of an eastern railroad.

This extension of the field of rolled steel wheels is due to advantages in first cost and maintenance coupled with the high degree of reliability demanded for the most exacting service. Formerly steel tired wheels were favored for trailer trucks because the tires could be changed readily. On modern locomotives the trailing axles have outside bearings and the wheels must be dropped to change the tires. It is often cheaper to change the wheels and send the parts to the shop

for turning than to remove the tires and shrink on a new set. Where this is the case, rolled steel wheels are often preferred.

In developing the roller trailer wheels it was found that the requirements for practically all classes of locomotives could be met by two sizes of wheels, 44 in. and 50 in. diameter with  $5\frac{1}{2}$  in. by 3 in. rims. The hubs are  $8\frac{1}{8}$  in. long and the diameters of the faces, 16 in. and 19 in., the large face being placed inside or outside as desired. The two sizes of wheels mentioned will fit in almost any trailing truck, but other sizes can be made if necessary. One of the illustrations shows four sizes of wheels produced by the Edgewater Steel Company: a 33 in. wheel for freight cars, 44 in. and 50 in. trailer wheels and a 53 in. wheel which was rolled to demonstrate the capacity of the mill.

Although rolled steel wheels are used extensively, few

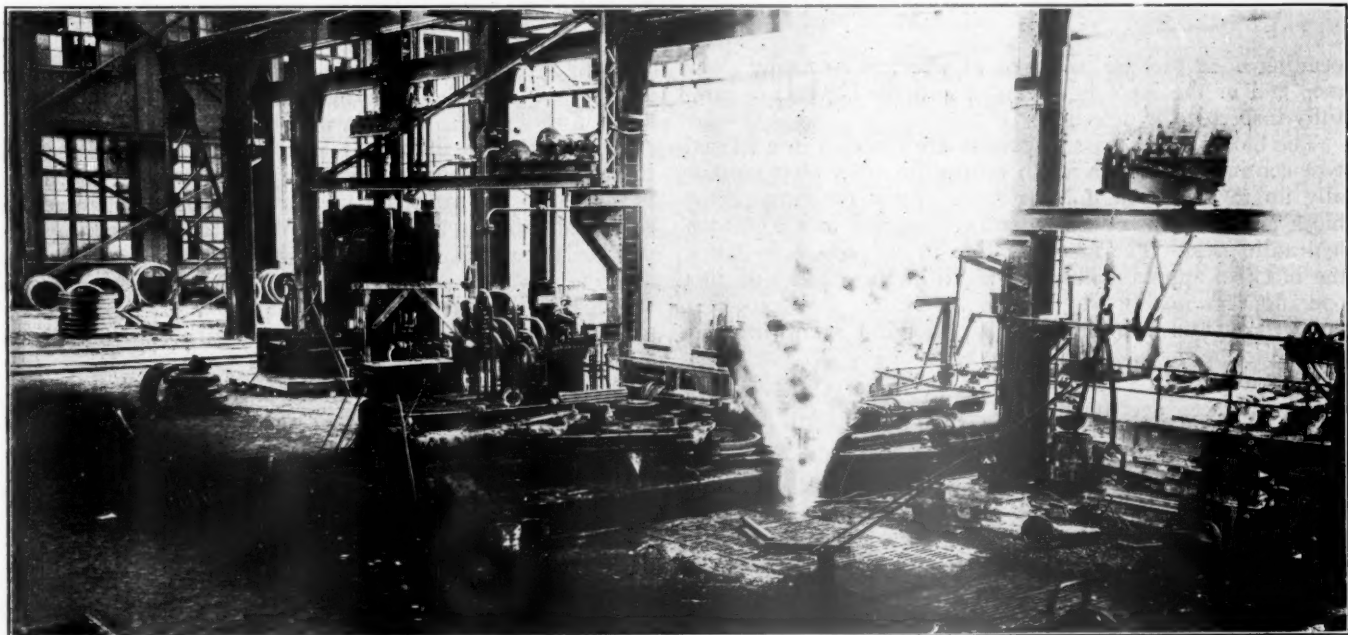


Fig. 1. Special Rolling Mill, Driven by 1,000 Hp. Motor, on Which Wheels and Tires Are Made

railroad men know except in a general way how they are made. The method of manufacture, especially that used by the Edgewater Steel Company, is most interesting.

The first step in producing rolled steel wheels is to make suitable steel. The specifications of the Mechanical Division of the American Railway Association call for the following chemical composition when the steel is made by the basic open-hearth process.

Carbon, 0.65 to 0.85 per cent.  
Manganese, 0.55 to 0.80 per cent.  
Silicon, 0.10 to 0.30 per cent.  
Phosphorus, not over 0.05 per cent.  
Sulphur, not over 0.05 per cent.

The Edgewater plant has four open-hearth steel furnaces; two of 75 tons capacity, one of 50 tons capacity, and one of 25 tons capacity. The steel is tapped into ladles and poured into ingot molds which are filled from the bottom in order to reduce the occlusion of gases and insure sound ingots. The composition of the steel is carefully controlled during the making by chemical and physical tests of each heat.

The ingots are allowed to cool and are cut into blocks in slicing lathes, as shown in Fig. 2, the size of the block de-

rolls. These are mounted on a carriage which can be moved toward or away from the main roll at the will of the operator, thus controlling the diameter of the piece being rolled. In this way the diameter of the piece is maintained until the flange and rim are fully formed by the rolls and then increased to the finished size.

The wheel is next transferred to a 2,500-ton hydraulic press where it is dished, giving the hub the required offset from the rim. During this operation the heat number and any other markings required are stamped on the wheel. After the wheels come from the press, they are allowed to cool, after which the hub is bored and faced and the groove showing the limit of wear is cut in the outside of the rim. The wheels are then measured and marked with the tape size, after which they are ready for mounting.

There are two unique features in this method of manufacturing wheels: the piece is developed from the block to the finished wheel in a single heat and the rim is worked on all sides throughout the rolling process. The thorough working of the metal and the low finishing temperature insure the proper structure of the steel in the finished wheel.

The method of making tires for locomotive or car wheels

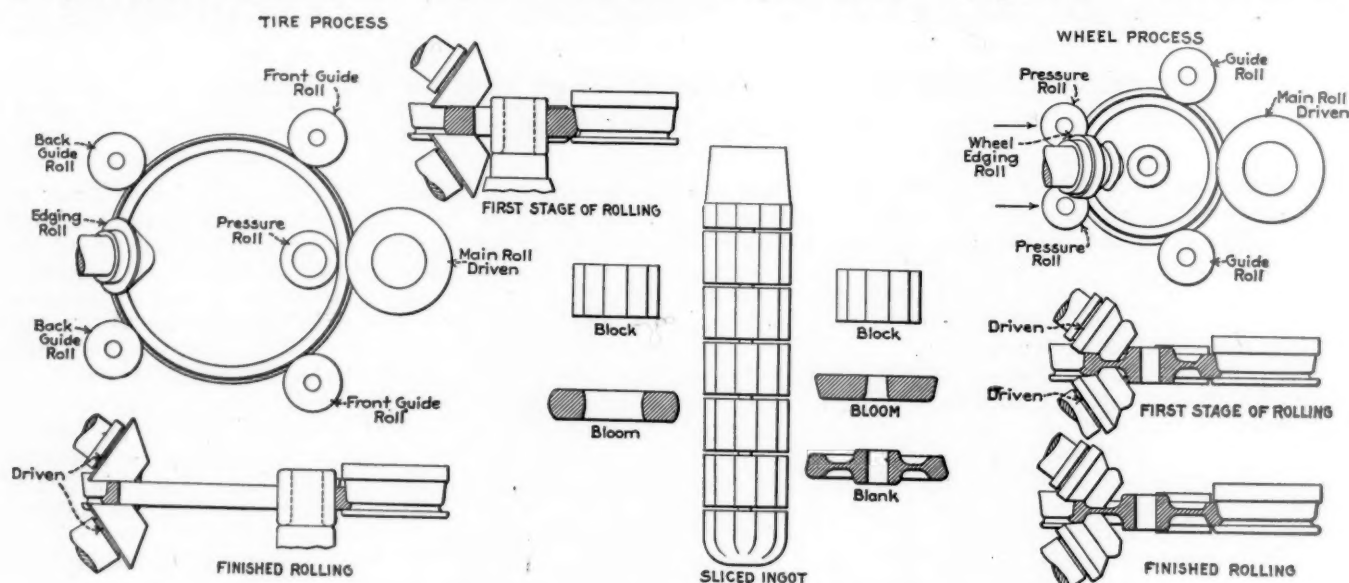


Fig. 2. Successive Steps in Converting an Ingot Into Rolled Steel Wheels or Tires

pending upon the size and type of wheel to be made. The crop end of the ingot is discarded and the blocks are carefully inspected for defects.

The blocks which pass inspection are reheated in a special type continuous furnace which brings the entire block gradually up to a uniform forging heat. From the furnace the block is carried by a semi-automatic conveyor to a 6,000-ton hydraulic press. The first operation on the press is to flatten the block to approximately the width of the wheel rim, this operation serving also to remove the scale. The center is punched out and then the bloom is placed in a set of dies and pressed to the shape of the blank shown in Fig. 2. The blank as it comes from the dies has a hub of the correct dimensions but the diameter over the rim is less than that of the wheel to be made and the rim has no flange.

The finished blank as it comes from the dies is transferred immediately to the rolling mills. One of these mills is illustrated in Fig. 1, the details of the arrangement of the rolls being shown at the right in Fig. 2. By reference to the latter illustration it will be noted that the wheel is held on the rim between seven rolls; the main driven roll shown at the right, two guide rolls, two edging rolls and two pressure rolls mounted between the edging rolls. The actual rolling of the metal is done between the pressure rolls and the edging

is in many respects similar to the process of making rolled steel wheels and the same machinery is used. The various steps in this process are shown at the left in Fig. 2. In preparing the bloom the center hole is enlarged in order that the bloom may be passed over the pressure roll. The flange is formed in the main roll while the top and bottom edging rolls maintain the proper width of the tire. In rolling tires two mills are used, the roughing mill forming the flange and drawing the tire partly to size, after which the rolling is finished in the second mill. In making tires, as in wheels, all sizes are rolled at one heat, thus insuring all the advantages of a low finishing temperature.

VALUABLE RECORDS of the Nashville, Chattanooga & St. Louis were destroyed in a fire which burned a building of that company in Nashville, Tenn., on March 3; estimated total loss \$50,000.

FIFTY PER CENT is the reduction reported by the Philadelphia & Reading in the number of fatal accidents to employees in 1921, as compared with 1920; sixty-eight killed in the last year and 34 in the year before. There was also a material reduction in the number injured.



# Arguments Before I. C. C. in General Rate Case

## Counsel for Carriers Urge No General Reductions in Rates or Percentage of Return at This Time

WASHINGTON, D. C.

THE RATE HEARING before the Interstate Commerce Commission reached its final stage on Wednesday, March 8, when the oral arguments before the full membership of the commission were begun by the railroads. Eight hours were allotted for argument on behalf of the carriers and 12 on behalf of the shippers and state commissioners, which would bring the hearing to a conclusion on Saturday, March 11. The hearing of testimony was concluded on March 4 after which there was an adjournment for two days. The argument was opened by Henry Wolf Bikle, assistant general counsel of the Pennsylvania, on behalf of the eastern carriers, who said the roads were unanimous in the belief that no general reductions in rates should be made at this time.

### H. W. Bikle for Eastern Roads

Mr. Bikle stated that the economic situation now confronting the country has a wider basis than the rates and fares of the railroads. It is a result of the dislocation of industry and the destruction of values produced by the World War, he said and that until this dislocation is corrected and new values created by productive effort, real prosperity cannot return. This return will necessarily be gradual, and any effort to accelerate it artificially by striking at the transportation industry would produce reactions which would defeat the very purpose intended to be accomplished.

He stated that the commission's finding in 1920 as to the aggregate value of the eastern carriers' property indicated that they earned, during 1921, only 3.3 per cent as against the 6 per cent to which they were entitled under the law; that for the last six months of 1921 their earnings were only 4.49 as contrasted with the 6 per cent to which they were entitled under the law; that while expenses of operation have been to some extent diminished, they have not been diminished so as to permit further general reductions in rates, unless preceded by reductions in wages.

The general reductions already made, particularly with reference to farm products, etc., have constituted a substantial inroad on the already depleted revenues of the carriers, and, with the financial condition of the railroads what it is, further experiments of this kind involve the possibility of the most serious consequences to the railroads, as well as ultimately to the public.

Mr. Bikle stated that the evidence showed that a 1 per cent reduction in freight rates would mean something over \$40,000,000 to the carriers of the country; that no one seemed to think that any stimulation of business would result short of at least a 10 per cent reduction, and that it was obvious that such a reduction would be impossible. He further said that the testimony indicated that no stimulation of business would result from reductions of this character since the depression in business had resulted irrespective of the reductions in prices made by producers, and that the small additional reduction which might be possible if the freight rates were reduced would certainly have no more effect than the large reductions in prices already made.

He further contended that, in view of the evidence as to the small profits which the shippers claim to be making, there is little chance of any reduction reaching the pockets of the consumer, and unless it did reach the pockets of the consumer, his buying power would not be increased, and consequently there would be no stimulation in business.

He also stated that the carriers strongly protest against any reduction in passenger fares, since clearly such a reduc-

tion would have no effect on business, referring to the testimony of Secretary Hoover, who had testified that in his judgment, "a decrease in passenger rates is not nearly so vital to the community as freight rates."

When Mr. Bikle said the rule to govern the commission's action in this case is to be found in section 15-a of the law, Commissioner Aitchison asked if he had considered what the commission should do if it should appear that it is impossible to make 6 per cent.

"I understand that is provided for in the law," replied Mr. Bikle. "The requirement is not absolute that the roads should be allowed 6 per cent. The law contains the words 'as nearly as may be.' You are only to try to reach that standard as nearly as possible."

Mr. Bikle said that with rare exceptions the shippers have recognized the serious situation of the carriers and have shown a considerate attitude which the carriers appreciate. He said there would be no justification for the fixing of a lower rate than 6 per cent and that the only evidence against the commission's tentative valuation of \$18,900,000 is that of Mr. Thorne's witness, Fred Pettijohn, who had presented a computation based on the tentative valuation reports already served of 182 roads, representing only about 10 per cent of the mileage. In urging the commission to prescribe 6 per cent he said the courts have recognized 6 per cent as the judicial minimum.

Commissioner Aitchison asked counsel to discuss the suggestion that the commission is not required to state a percentage but merely fix rates from time to time that will produce what it considers a fair return. Mr. Bikle said he thought the law clearly required the commission to state a percentage. Commissioner Hall asked if that meant that there was any dereliction on the part of the commission in failing to name a percentage on March 1. Mr. Bikle said he would not carry the point that far because it was not necessary since the roads were not asking for an advance in rates, but that it would be necessary if rates are to be reduced. The roads are merely asking the commission to continue the rule of Ex Parte 74. He could conceive of no more serious blow at railroad credit than a decision by the commission finding less than 6 per cent to be a fair return.

Commissioner Potter asked how a 6 per cent return for the carriers as a whole gives any assurance to the individual investor, as in the case of the New England roads. Mr. Bikle replied that while there is no guaranty, a 6 per cent aggregate return would at least give the New England investor a greater assurance than a 5 per cent return. Mr. Bikle said we know little about the future except that it is uncertain and he referred to the probable effects of a coal strike in reducing traffic. He said the statements that reductions in rates would be followed by a great stimulation of business are not founded upon evidence but represent rather only a wild guess.

"Does not 15-a require us to speculate?" asked Commissioner Aitchison.

"I think it rather requires you to act in the light of present conditions," replied Mr. Bikle.

### Fred H. Woods for Western Roads

Fred H. Wood, commerce counsel of the Southern Pacific, urged the commission not to make any further reductions

in freight rates until there has been a further liquidation of operating expenses owing to the financial condition of the railroads of the country. He spoke for the western roads.

"No greater blow to the credit of the carriers, to the improvement of transportation facilities or to a renewed purchasing power upon the part of the carriers as an impetus to industrial activity, could be imagined than an order by this commission whereby a general reduction in rates is ordered, either as a whole or upon any substantial volume of traffic; whether upon the theory that business would be thereby stimulated, or through the medium of a reduced authorized rate of return," Mr. Wood said. "The maintenance even of present earnings and of the present upward tendency is involved in much doubt and uncertainty.

"Based either upon actual operations or upon the constructive year figures it is manifest that present and prospective earnings fall far below the standard of Section 15-a and cannot be substantially reduced without seriously imperilling the financial condition of the carriers, which has been at such low ebb throughout the entire 16 months since the close of the guaranty period, during which as a whole the average rate of return has been scarcely more than one-half of the standard set by Section 15-a and but little in excess of interest charges, many of which have not in fact been earned by many important carriers.

"The credit and financial position of the carriers has been maintained during this period largely through the hope of better conditions in the future, and it is inconceivable that in the face of the actual results of operation for the past six months and the computations made in the constructive year the commission will, by reason of the slight increase which these figures show over the 16 months' period as a whole, find it either lawful or expedient to neutralize the slight improvement which has already taken place by rate reductions, seriously affecting net earnings. Furthermore, when the figures for the month of January, 1922, the first month which reflects the cumulative effect of rate, wage and price reductions, are taken into account the utter unwisdom, not to say illegality, of orders reducing rates becomes manifest.

"Incomplete reports would indicate that the net operating income of the carriers in the Eastern district in January last were at the annual rate of return of 4.4 per cent on their tentative valuation, those in the Southern district, 2.6 per cent; and the Western district, 1.1 per cent, the average for the country as a whole being approximately 2.2 per cent.

"The cumulative effect of the rate reductions already made is illustrated by the fact that whereas the ton miles in the west show a decrease in January, 1922 of 6.9 per cent the gross revenues show a decrease of 15.8 per cent. Under these circumstances the commission must conclude that even without any allowance whatsoever for deferred maintenance, the past, present and prospective net earnings of the carriers are such that no reduction therein through a reduction in rates of a general character, either as applied to all traffic or any description thereof can safely be made with justice to the carriers or to the interests of the public."

Mr. Wood said that "with due allowance for deferred maintenance the present net earnings as well as prospective earnings indicate that the position of the carriers is substantially as perilous as that which continued through 1921 and little less critical than at the termination of federal control."

The commission will take a great responsibility if it orders rate reductions upon the expectation that the traffic will be so stimulated thereby as to offset or more than offset the immediate effect of such reductions upon the volume of traffic now being moved without the most convincing proof" added Mr. Wood. "If the matter is involved in doubt or left to speculation there can be no warrant for such action.

"The whole argument in favor of the reduction in rates

upon the theory of stimulating business is speculative and artificial. The only definite and certain thing present in the situation is that by such reductions the carriers will be driven back to a position as bad or worse than that which faced them at the end of federal control. A business revival can be much more speedily and effectively brought about by a resumption of buying power upon the part of the railroads than by any other single event which can take place in our industrial life, and this buying power instead of being stimulated will be completely destroyed if the theory of those who advocate rate reductions for the purpose of stimulating business are to be governed."

Mr. Wood pointed out that the aggregate amount of money represented by reductions made since 1920 in wholesale prices is 15 times as great as the aggregate advance in freight rates made by the commission in its order effective August 26, 1920, but said that the lower price level had not stimulated demand which remains stagnant.

"To suggest," said Mr. Wood, "that the relatively small further reduction in prices, which might but probably would not follow a reduction in rates, would have this effect is to assume the incredible and to shut the eyes to the fundamental causes of business depression."

Mr. Wood said that exhibits filed with the commission show that there had been a "progressive and continuous drop" since September, 1920, in the prices of metals and metal products, the drop being "manifestly largely in excess of the decrease demanded in freight rates" but added that it has had no "apparent stimulating effect upon demand."

Mr. Wood pointed out that the passage of the transportation act was not an act of favoritism to the railroads but represented a recognition of the fact that production is nothing without distribution and that adequate transportation service is a national necessity.

"If, as believed," Mr. Wood said, "any general reduction would be inconsistent either with the strict letter or with the general purpose of the fundamental statutory provisions, this case comes to an end, and the disposition of rates on individual descriptions of traffic is relegated to the ordinary docket."

As to when reductions in rates may be expected, Mr. Wood said:

"The answer is easy. With a wage bill approximating the pre-war revenues no one has a right to expect pre-war rates. The carriers are now before the Labor Board seeking reductions in wages. The process is necessarily slow and cumbersome. This commission should make it plain to the public that these rates cannot be reduced until operating expenses are reduced through such wage reductions as the Labor Board shall find to be just and reasonable. It would not be right for this commission to anticipate its action. The railroads are on record in giving assurances that rates will be promptly reduced by the amount of any wage reductions."

Some of the commissioners asked Mr. Wood how the rate reductions would be made following a wage cut. He said he assumed the roads would then consider a plan and submit it to the commission for approval. Commissioner Potter remarked that so far as he was concerned, he would object to the railroads bargaining as to what they shall do with any saving they shall make, because the commission has some responsibility as to that.

#### Frank Gwathmey for Southern Roads

Frank W. Gwathmey, speaking for the Southern roads, said that there was a relatively small amount of testimony by shippers in this case referring to the southern situation. The carriers in the southern territory, he said, have exhibited the most unfavorable returns of any group of roads in the country. Their increases in rates have been less than those of other roads, averaging about 56 per cent, and they received less than they asked in Ex Parte 74. Since September, 1920,



the southern roads in each month have earned a less percentage than the other groups. For 1921 it was only 2.6 per cent. For the last half of 1921 it was 4.04 per cent. In the aggregate they failed to earn interest on their funded debt.

"It would be worse than idle," he said, "to assume that any percentage reduction in rates could have a greater effect on the movement of cotton than the great price fluctuations that have been made. The recent 10 per cent reduction made not even a flutter in the market. The crop is not there to move." There has also been a large shrinkage in the production and consumption of tobacco and fertilizer in spite of reductions in price, he said. Improvement in business in the south must necessarily be gradual, and it would be only slightly influenced by any reasonably possible change in freight rates.

#### State Commissions Ask Rate Reductions

F. W. Putnam of the Minnesota railroad commission, urged that the railroads "do their share toward the restoration of normal pre-war conditions." He spoke on behalf of a committee representing the western and southern states, asking the commission to find (1) that it is fully authorized to reduce rates on the ground that, under present rates and costs, with normal traffic, the carriers would earn a net railway operating revenue in excess of that contemplated by the act; (2) that the present rates are unreasonable under Section 1 of the act, and (3) that the passenger rates are unreasonable and higher than the traffic will bear and reduced rates will stimulate business and result in maintaining present net return and give a greater public service.

#### Traffic Officers Say Rate Reductions

##### Will Not Increase Revenue

The hearing of testimony was concluded on Saturday, March 4, after three days of rebuttal testimony on behalf of the railroads.

T. C. Powell, vice-president of the Erie, said that in the view of traffic officials generally no reduction in rates that could reasonably be made at this time would have any substantial effect in stimulating traffic, because of the world conditions and the lack of demand. He said there was nothing in the testimony offered by shippers to shake that statement, yet, he pointed out, a reduction of 1 per cent in freight rates would reduce revenues by \$50,000,000 a year. He said a maximum increase of 20 per cent in traffic would be required to make up for a 10 per cent reduction in rates but added that he firmly believed such an increase was far beyond anything possible. He introduced a number of exhibits analyzing the traffic in 1921 in various commodities on which rates were reduced by the carriers to show that the reductions had practically no effect. The initial effort of the roads to stimulate business by reducing rates was the reduction in export rates on iron and steel, yet there was practically no change in the traffic after the rates had been reduced 25 per cent.

Mr. Powell had an exhibit comparing the prices of anthracite coal at the mines with the freight rates for the years 1913, 1914, 1915, 1916 and 1921, which showed that in almost every instance the rate was a lower percentage of the mine price in 1921. On domestic sizes the price had increased 100 per cent since 1913 while the rates had been increased about 66 per cent.

Mr. Powell said that the eastern lines desire the Pullman surcharge continued and that their experience has not borne out the statement of the Pullman Company that it has materially decreased traffic. The Pullman Company's statement, he said, failed to take sufficient account of the effect of the business depression on passenger travel, but he thought the surcharge had caused many people to ride in day coaches rather than in Pullman cars.

Certain butter shippers had urged a reduction in their

rates to enable them to compete with butter shipped from Denmark and Australia, yet, he said, Danish butter sells in New York for 4 cents a pound more than American butter, because it is better butter and a freight rate of 4 cents would more than carry it across the country.

Stanley H. Johnson, vice-president of the Chicago, Rock Island & Pacific, produced exhibits to show that some of the principal reductions in rates made during 1921, including livestock, grain, fruits and vegetables, and lumber, were not followed by increases in traffic and the present indications are for a reduction rather than any possible increase in the principal classes of traffic carried by the western railroads in 1922. On the other hand, there have been fluctuations in prices much greater than any changes in rates. He said there is no prospect for anything but a decrease in agricultural tonnage no matter what the freight rate is and that general reductions on any commodity would not stimulate the traffic except as it affected one competitor as against another. Commissioner Aitchison asked if an increase in rates sufficient to produce a 6 per cent return would affect the traffic. Mr. Johnson replied that in his opinion any increase within reason would not, generally speaking, but it would be poor psychology to increase rates.

Mr. Johnson referred to the fact that a large number of shippers have urged reductions in coal rates, but he said that as most manufacturers use coal for fuel this means no more than a general desire on the part of taxpayers for lower taxes or on the part of street car patrons for lower fares. He pointed out that the effect of a general reduction in rates on coal would be felt particularly by the same western railroads which are also the heaviest carriers of agricultural products, on which rates have already been reduced. The reductions in rates on fruits and vegetables, he said, may have prevented some reduction of long haul shipments but had no marked effect on the movement generally. As to grain and livestock, he said, there is not enough traffic in sight in the country to enable the railroads to recoup themselves by increased tonnage for the loss in revenues resulting from the reductions in rates.

"It is my opinion that the granger roads, whose very existence is so bound up by the earnings which they derive from the handling of their relatively large proportion of the total tonnage represented by the movement of the products of the soil, of the field, the forest and the mines, have already contributed their full share in the shape of freight rate reductions," Mr. Johnson said. "Emphasis is laid upon the facts that the comparatively poor showing for November and December last did not include the reductions represented by the commission's grain rate decisions and the 10 per cent reduction voluntarily made by the carriers. If the western carriers are going to continue to properly function, it is earnestly felt that they cannot sustain further rate reductions in the near future."

As to the wheat prospects for 1922, Mr. Johnson said that government estimates made on December 1 last, showed that with the single exception of Illinois, the 1922 prospect is substantially poorer than the 10-year average. "The Department of Agriculture," he said, "has issued no subsequent bulletin but it is a matter of general information that the current condition of winter wheat, due to lack of moisture, has greatly deteriorated since December 1, 1921. This prospect foretells substantial inroads for the last six months of 1922 in the freight earnings of the western carriers, which carriers, including those in the state of Illinois, originate 75.7 per cent of the nation's wheat. A reduction in freight rates obviously cannot stimulate or create the movement of wheat of the crop of 1922, which is not harvested."

Mr. Johnson said most of the 1921 wheat crop had been moved prior to the rate reductions already made, but said the contrary was the case with respect to coarse grain.

"The amount of coarse grain which will be either fed at

home or offered for transportation on or after January, 1922, will approximate the crop of 1921. While there was more or less movement previous to that date, it was probably offset, if not more so, by the large amount of coarse grain carried forward from the crops of 1921 and previous thereto into the crop movement of 1921, so that speaking in approximate terms the carriers are confronted with a shrinkage in their earnings for the year 1922 in the territory described, of 21.7 per cent on an amount of movement of coarse grain approximating the crop year of 1921.

"Grain and grain products represent 11.39 per cent of the total tonnage originating on the western railroads and the prospective curtailed movement of wheat for 1922 and the large percentage of reduction in the rates on coarse grain represent an outlook of distinct discouragement for the western railroads."

The witness pointed out that with cotton as with grain, live stock and other products of the soil, a large quantity has been produced in this country in 1921, and there will be just so much cotton to be transported and its volume cannot well be affected by any freight rate change within reason.

### The Warfield Pooling Plan

Daniel Willard, president of the Baltimore & Ohio and chairman of the advisory committee of the Association of Railway Executives, and R. H. Aishton, president of the American Railway Association, told the commission why they did not think much of the Warfield plan for pooling cars under the direction of the National Railway Service Corporation. Mr. Willard said the railroads have not been indifferent to the subject of improving the efficiency of car handling and he described the organization of the advisory committee, the American Railway Association and its Car Service Division and the work they have done. His committee has had one meeting, he said, with the board of economics and engineering of the Warfield organization, had given it assurances of a willingness to co-operate and made arrangements for furnishing it with information requested. The recommendations made by the board, however, he said, were unnecessary, because the objects sought were being accomplished in a more efficient manner by the agencies already in existence which have stood the test of time.

He referred to the Car Service Division, the result of six years of development, and to the accomplishment made in 1920 when the roads handled the heaviest traffic on record, with the co-operation of the Interstate Commerce Commission in the exercise of the emergency powers provided by the Transportation Act. He said the report of the board of the Security Owners' Association suggested collaboration with the American Railway Association but that the new organization could not be superimposed on the existing agencies; it represented a new experimental plan proposed as a substitute. The commission has power in times of emergency to deal with all the freight cars without regard to ownership.

The economies claimed by W. W. Colpitts for the pooling plan, Mr. Willard said, represented merely estimates and some of them could be brought about just as well by existing agencies as by a new one, while others were of doubtful dependability and would require many years to show any results.

Some of the advantages that might result from pooling would be more than offset by other disadvantages. Regarding the claim that it would reduce switching and empty mileage, he said he had not had his attention called to any substantial saving of switching resulting from the pooling of cars during federal control and that the amount of empty mileage is largely governed by the lack of balance in the traffic because a car must move home sometime.

In reply to questions by the commissioners as to whether there would not be an advantage in having some agency to

repair cars at the most economical time and have them ready when needed, Mr. Willard said that under ordinary conditions that could be done by the railroads. Now they are deferring repairs in order to be able to meet their payrolls and interest, not merely to make a better earnings showing, but the commission has authorized the railroads to do repair work in dull times and charge it to expenses later when the cars are put into service. When the operating expenses show some improvement that can be done, Mr. Willard said.

As to standardization, Mr. Willard said that the work the railroads had already done in standardizing such things as wheels, axles, couplers, brakes, etc., was monumental as compared with what the Railroad Administration did.

To show the extent to which the railroads are now co-operating by the use of joint facilities, Mr. Willard read a statement summarizing the replies to a questionnaire sent to the Class I roads which showed:

Seventy-six railways reported 243 engine terminals owned and used jointly;

One hundred twenty-seven roads reported 3,558 points of freight interchange at which inspectors are located;

One hundred twenty roads reported 1,416 interchange points at which joint inspectors are stationed;

One hundred roads reported 1,006 l.c.l. joint freight houses;

One hundred seven roads reported 1,280 joint passenger stations;

Ninety-five roads reported 555 joint yards;

Sixty-four roads reported 554 large bridges jointly used;

One hundred sixty-one roads reported the joint use of 16,251 miles of track under trackage rights;

The report also showed 3,179 separate passenger stations used by two or more railways.

Mr. Willard said he had been bothered some to understand how the proposed corporation would be sufficiently assured of an adequate income to insure its credit.

Mr. Aishton said that the subject of car pooling had been argued by railroad officers for many years but that the almost unanimous opinion of transportation officers was that car service rules and a per diem system represent the better plan. He took up in some detail the various claims made for the plan and pointed out some practical objections.

The Car Service Division, he said, co-operating with the Interstate Commerce Commission, is now able in times of emergency to create what amounts to a temporary pool of freight cars by directing the movement of cars from parts of the country where there may be a surplus to the districts where shortages exist. He pointed out that the pooling of freight cars during federal control had failed to demonstrate any marked economy. To illustrate the efficiency of freight car use he pointed out that in the fall of 1916, the ton-miles per freight car averaged 506 per day. In the fall of 1918, under federal control, the ton-miles per car per day averaged 556 and in the fall of 1920, under private management, the ton-miles per car per day reached the record figure of 564.

Regarding the proposed retirement of the light cars, Mr. Aishton questioned whether it would be good business to retire them in a few years rather than to retire them gradually in a normal manner, because many of them are fulfilling a useful function and are good for many years of service. He said the empty mileage is largely controlled by traffic tendencies and he thought it better for the necessary empty movements to be made normally by attaching the empty cars to light trains than to have the movement forcibly made by a central agency.

### Effect of a 10 Per Cent Reduction in Coal Rates

Replying to various witnesses representing shippers who had contended that a reduction in freight rates on coal is essential to the stimulation of business, H. A. Cochran, assistant coal traffic manager of the Baltimore & Ohio, told



the commission that almost any reasonable reduction that could be made would hardly be reflected in selling prices.

Estimating the average consumption of coal at 5.35 tons per household, Mr. Cochran estimated that a 10 per cent reduction in freight rates would mean an average saving to each householder of only \$1.21 a year.

"Exhibits filed by shippers with the commission show that the freight charges on a ton of coal from Athens, Ohio, to Detroit, Michigan, is \$2.47 per net ton," continued Mr. Cochran. "In constructing an automobile, whose factory price is approximately \$1,000, these exhibits show that about two tons of coal is used. The freight charges on this would be \$4.94. The exhibits show that the freight charges on an automobile from Detroit to Athens would be \$24.83. A reduction of 10 per cent in the freight rate on coal used in constructing the automobile would result in a reduction in the cost of 49½ cents. A 10 per cent reduction in the rate on the automobile would reduce the cost to the consumer by \$2.48.

"In like manner we find that a 10 per cent reduction in the rates on coal from Fairmont, West Virginia, to Allentown, Pennsylvania, would reduce the cost of producing a barrel of cement slightly over three cents while a reduction of 10 per cent in the rate on cement from Allentown to Fairmont would reduce the cost to the consumer by 7½ cents a barrel. A reduction of 10 per cent in the coal rates from Somerset, Pa., to Pinesburg, Md., would result in a saving in the production cost of lime of 7¾ cents per ton, while a reduction of 10 per cent in the freight charges on lime from Pinesburg to Somerset would result in a reduction in the cost to the consumer of 26¾ cents per ton of lime."

Mr. Cochran said that a 10 per cent reduction in coal rates would reduce the cost of producing a ton of copper 38¾ cents while a reduction of 10 per cent in the rate on copper would reduce the cost to the consumer by 76 cents.

"Reports of the Bureau of Census for 1914 show the value of manufactured products to have been a little over \$24,000,000,000," the witness said. "In that year the bituminous coal production (422,000,000 tons) was but slightly greater than in 1921. Exhibits already filed show that the coal transported by railroads and used in steel plants, by-products, coke ovens and other industrials amounted to 40.2 per cent of the total production. The bituminous coal produced in 1921 was about 407,000,000 tons; 40.2 per cent of this would be 163,614,000 tons. Freight charges on this at an average rate of \$2.27 per ton would be \$371,403,780. The present index number of the bureau of labor statistics is about 150.

"If the same amount of products was manufactured in 1921, as in 1914, the value would be over \$36,000,000,000. The freight charges on coal used for industrial purposes would therefore be but slightly over one per cent of the total value. A 10 per cent reduction in bituminous coal rates would be equivalent to but one-tenth of one per cent of value of products.

"So far as we can find from the record," the witness said, "not one shipper producing manufactured articles through the use of coal has gone on record as agreeing to translate a rate reduction on coal into a reduction in the selling price of his manufactured articles."

As to the effect of a 10 per cent reduction in coal rates on the manufacture of steel products, Mr. Cochran said that such a reduction would reduce the production cost only 64/100 of one per cent and a 15 per cent reduction would reduce the cost by less than one per cent. "It is not believed," he said, "that so slight a reduction would be reflected in the selling prices to the railroads."

Mr. Cochran also said that even a reduction of 15 per cent on coal rates would mean a saving of only from 23½ cents per ton of pig iron in the Pittsburgh district to 76½ cents per ton in the Chicago district. He also showed that

a 15 per cent reduction in coal freight charges would result in a saving of only from 13½ cents to 4½ cents per barrel on cement.

Replying to the assertion of J. D. A. Morrow, vice-president of the National Coal Association, that lower rates on coal will reduce the operating expenses of the carriers and that roads which pay freight on their fuel will show an immediate saving, Mr. Cochran said it is self-evident that to the extent the operating costs of some railroads would be reduced the revenues of other railroads would be reduced, and that any reductions in rates on railway fuel coal would have to apply on commercial coal, involving heavy losses in revenue.

Estimating a production of 500,000,000 tons of bituminous per year, railroad consumption at 27.7 per cent would be 138,500,000 tons. At 57 cents per ton, the freight charges on this coal paid by the railroads would amount to \$78,945,000. On the other hand, the tonnage on which freight charges were paid by others than railroads would be 300,500,000. Therefore, a 10 per cent reduction in rates would mean a saving to the railroads which pay freight charges on their coal of \$7,894,500, which would be accompanied by loss in revenue to themselves and other railroads of \$68,213,500 on bituminous coal other than railway fuel. This would be in addition to a loss of \$7,894,500 to the carriers who receive freight charges on railway fuel. The loss would be particularly heavy in the case of such roads as the Baltimore & Ohio; Buffalo, Rochester & Pittsburgh; Chesapeake & Ohio; Chicago & Eastern Illinois; Erie; Pennsylvania; Western Maryland and Wheeling & Lake Erie.

It is impossible, Mr. Cochran said, to forecast with any assurance the f.o.b. mine prices after April 1, but if the operators are to claim profits as indicated by their exhibits for 1921 it is difficult to see how the average selling price after April 1 can be less than from \$2.48 to \$2.60.

"Mr. Morrow estimated prospective reductions in costs of railway fuel coal at from 50 cents per ton to \$1 per ton below the October, 1921, average of \$2.98 per ton. If we take the average of these estimates and assume a reduction of 75 cents from \$2.98, the average mine price for railway fuel after April 1, 1922, would be \$2.23," Mr. Cochran said.

"If we are to accept the proposition that all savings by reason of reduced mine prices of coal are to be translated into reductions in freight rates on coal, then we should also translate all increases in mine prices of coal into increases in freight rates on coal. Applying this theory to the present situation and assuming that the average prices of railway fuel used in October, 1921, and the coal freight rates were at that time properly balanced or related to each other, then the coal freight rates after April 1, 1922, based on Morrow's forecast of the prices that will be available to railroads after that time, would be changed as follows:

"On a 500,000,000 ton annual production approximately 12 per cent or 60,000,000 tons would not be shipped via railroads. Approximately 95,000,000 tons used by railroads would not be subject to freight charges. This leaves 345,000,000 tons, or 69 per cent of the total production as the amount on which freight charges would be paid by railroads and other consumers.

"Coal purchased by railroads (27.7 per cent of the total production) is equivalent to 40 per cent of the coal on which freight charges are paid (69 per cent of the total production). If freight charges should receive the full benefit of all savings in fuel prices f.o.b. mine, then the average rate per ton should be reduced by 40 per cent of the average reduction in fuel prices; that is, for each 10 cents per ton that the fuel price in eastern district is reduced from an f.o.b. mine price of \$2.80 per ton, the average freight rate should be reduced by four cents per ton. If fuel prices after April 1, 1922, average \$2.23 per ton, a reduction of 57 cents as compared with October, 1921, would be equivalent to 5.7 times four

cents or 23 cents per ton. This would represent 10.1 per cent of the average freight rate on coal.

"This merely represents what might be done if the theory is accepted that all reductions in f.o.b. mine prices of coal should be translated into reductions in coal freight rates, and provided that there is any assurance that the mine prices of railway fuel coal after April 1, 1922, will be as low as \$2.23 per ton. Prices already show a tendency to advance, having risen from an average spot price of \$2.207 on January 30 to \$2.220 on February 13. This tendency will doubtless be accentuated by the prospect of a miners' strike on April 1 and further accentuated after April 1 if a strike actually takes place. Such strike would not only tend to increase the fuel costs to the railroads, but would materially reduce the earnings on coal traffic. If the strike be prolonged, it would also result in a substantial loss of revenue on other freight, because of the necessary closing down or curtailment of operations at such mills as do not have an ample reserve supply of coal, or would be unable to secure the required amount of fuel from non-union mines."

J. J. Campion, vice-president of the Carolina, Clinchfield & Ohio, also expressed the opinion that a rate reduction on coal would not stimulate traffic in that commodity. S. G. Lutz, vice-president of the Chicago & Alton, told the commission that any reduction in coal freight rates would "seriously embarrass many western lines and court disaster for some of them." He said 11 western railroads serving important coal districts, as well as agricultural sections, failed to earn their fixed charges in 1921.

A 10 per cent reduction in bituminous coal rates he said would mean a reduction of 69½ per cent in the net operating income of the Chicago & Alton and more than 26½ per cent in that of the Illinois Central. In the case of the Chicago, Burlington & Quincy, it would mean a reduction of nearly 11 per cent, Mr. Lutz said, 19 per cent for the Chicago, Milwaukee & St. Paul, and more than 19 per cent for the Chicago & Northwestern.

"Nothing should be done at this time to rock the transportation boat by experimenting with reductions in the carriers' revenues" Mr. Lutz concluded. "We all recognize that present freight and passenger rates have not produced an adequate return up to the present time. It seems to me the safer course to pursue would be to test the future by experience and make reductions in the carriers' revenue only when it is clearly apparent that their earnings warrant the reductions and when such reductions can be made with the certainty that they will be generally helpful in bringing up a return to normal economic conditions."

#### Present Basis of Rates and Costs

##### Affords Less Than Fair Return

That the net operating income of the railroads would still be considerably less than a six per cent return if they were to do over again the business of 1921 at present rates and costs of operation, allowing for the reductions that have been made recently in both, was shown in exhibits filed at the request of the commission by George M. Shriver for the eastern roads, G. W. Lamb for the southern roads and L. E. Wettling for the western roads. These "constructive year" exhibits showed that the eastern roads would have a net operating income of 5.06 per cent, as against an actual 3.09 per cent in 1921; the southern roads 4.25 per cent as against 2.36 per cent, and the western roads 4.49 per cent as against 3.50.

For the roads as a whole Mr. Shriver's exhibit showed a constructive return of 4.8 per cent as compared with 3.25 actually earned in 1921, based on the tentative valuation including additions and betterments to September 30, 1921. The adjustment included a reduction of revenues of \$142,000,000 because of decreases in rates and a reduction of \$491,000,000 in operating expenses, but an increase of \$56,-

763,322 in taxes. These changes would produce an increase in net operating income to \$907,693,630.

These witnesses also filed a number of additional exhibits, bringing up to date figures that had previously been introduced and facts in answer to statements made by various witnesses for the shippers. Mr. Wettling gave an estimate that if the railroads were able to pay wages comparable to those paid for similar labor in other work they would save \$27,000,000 a month. Some exhibits were also introduced in reply to the assertion by the Pullman Company that the surcharge was keeping people from traveling. One of these showed that although the surcharge has not recently been in effect in Georgia the number of Pullman passengers on the Central of Georgia was less in January, 1922, than in January, 1921, when the surcharge was in effect.

## The Railway and Locomotive

### Historical Society

**L**ESS THAN 100 years ago the first locomotive was placed in operation in this country. The development of the railroads which followed brought about such rapid progress that in half a century the continent was settled from the Atlantic to the Pacific and girdled with a network of steel which so hastened its industrial development that within the short span of a century the American republic rivaled in wealth and power the leading countries of the old world. This is but one aspect of the influence of the railroads upon the progress of this nation. The complete story, if it could be told, would be more thrilling than fiction, of deeper significance than military campaigns or battles.

The history of the railroads in the United States is recorded only in fragments. There is no record of many of the important details of the early development and as time goes on the present knowledge will be lost unless carefully preserved. Here and there throughout the country will be found a few earnest workers whose interest in railroad history has led them to collect data on the early progress of rail transportation. In order to make their work more effective, about 50 persons interested in early railroad history have formed an organization under the name of the Railway and Locomotive Historical Society.

The first two bulletins of the society have now been issued, and contain some interesting articles which can be judged from the following titles: Yesterdays on the New York Central; The Story of the New England; America's Most Famous Trains; The Fall River Line Boat Train; Eddy Clocks; Some Experimental and Historical Locomotives of the Chicago & Northwestern; The Rival Builders, the last named giving many important particulars of locomotives built by William Mason and the Taunton Locomotive Works.

The officers of the Railway and Locomotive Historical Society are: president, Charles E. Fisher, Taunton, Mass.; vice-president, Herbert Fisher, Taunton, Mass.; recording secretary, C. W. Phillips, Taunton, Mass.; corresponding secretary, R. W. Carlson, Escanaba, Mich.; treasurer, A. A. Loomis, Jr., Berea, Ohio.

THE SUPREME COURT OF ILLINOIS on February 22, enjoined the Cook County Board of Assessors and the Board of Review of the State from levying \$264,915 in taxes against the Illinois Central, on stocks and bonds of lines in other states, amounting in all to \$10,308,000. When the levies were made in 1919, the road challenged the right of the board to make them, asserting that the securities were an indebtedness rather than a taxable asset. The Supreme Court upholds this view.



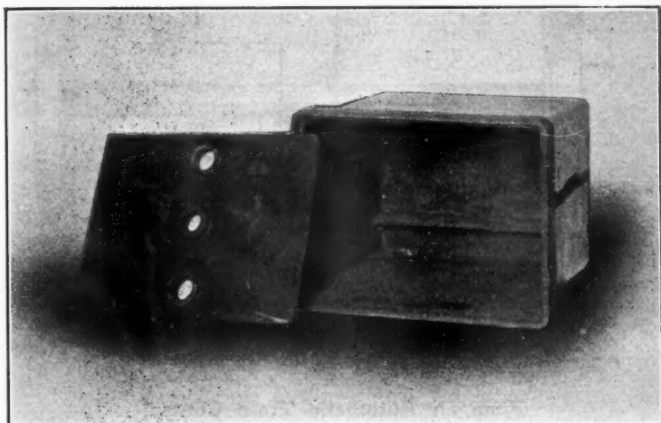
# Use of Hard Rubber Battery Jars in Car Lighting

Santa Fe Has Succeeded in Reducing Battery Tank Maintenance  
to 30 Cents a Month Per Car

By A. E. Voight

Car Lighting Engineer, Atchison, Topeka & Santa Fe

**H**ARD RUBBER JARS versus lead tanks for use in storage batteries on electrically lighted cars is a popular subject at the present time. In the early days of car lighting quite a few roads used hard rubber jars, but most of



Hard Rubber Battery Tank and Rubber Cover. Bottom Rests Are Molded as a Part of the Tank

them abandoned their use because of the heavy breakages they experienced. The Santa Fe was the only large road that continued their use and went into the subject of overcoming the troubles that were originally experienced; this



The Side of the Crate Is Protected by a Long Wood Strip Instead of the Usual Porcelain Cleats

resulted in the making of the jar shown in one of the illustrations.

No doubt a great deal of the trouble that was experienced by some roads was due to their using plates that buckled and grew, thus breaking the rubber jars. This trouble has been

reduced considerably by more modern equipments which protect the batteries from excessive overcharges. If a battery is not subjected to overcharge the plates will not grow much.

The assembly of jars in the crate was found to be an important factor, the best results being obtained where the jar fits snugly so as to give it the benefit of the mechanical strength of the crate. To accomplish this all space around the jar is taken up with thin wood blocks.

The location of side buffers on crates is of importance. We found it good practice to use a wood strip the full length of the crate instead of the short porcelain that was first used, as our experience showed that in cases of accidents or emergency stops the buffer would sometimes be driven through the crate, resulting in the loss of a jar. The crate is made



Lead Antimony Cover for Use With Rubber Jar. Groove Contains Plastic Sealing Compound

of yellow pine and dipped in hot paraffine before and after assembling. The advantages of the rubber jar over the lead tank are as follows:

Lower first cost.

Freedom from grounds.

Freedom from leaks caused by chemical or electrolytic action.

Lower maintenance cost.

Experienced lead burner not required at all terminals to repair leaks.

In support of our statement of lower maintenance cost it may be stated that we have about 1,250 sets of 16 cells of batteries in service and our average jar costs per car per month for the past three years are as follows:

Business Cars	Smokers, Conches Chairs & Comp. Cars	Diners & Cafe Observation	Pullman Cars
\$0.34	\$0.30	\$0.41	\$0.34

All of our diners and some of our business cars and cafe-observation cars are equipped with 32 cells of batteries. The above figures are about double what they were in 1917, as both the material and breakages went up during the war period. However, the figures show that it is only necessary to replace one jar out of a set of 16 in 13 months.

Another factor in cost that is done away with by the use

of the rubber jar is the side and end rubber liners and plate supports, together with extra amount of labor and equipment that is necessary to assemble them.

The largest item of expense of upkeep experienced with lead tanks is due to leaks caused by electrolytic corrosion. If each lead tank could be perfectly insulated from the other tanks and from the ground this corrosion could be prevented. It is, however, practically impossible to prevent grounds between tanks and the battery box. The wooden trays will become acid soaked and the porcelain skids will become covered with a layer of acid soaked dust, and thus a path for current from the tank to the ground is produced. When two such grounds exist in the same battery, even though of comparatively high resistance, a small amount of current will flow and any small amount of current flowing from one tank to another will start electrolytic corrosion, which will pit the lead tank and cause it to leak. The thin rubber liners used in the lead tanks between the plates and the tank are another source of trouble. The constant rubbing of the plates against the liners will eventually puncture the liners and thus permit the plates to come in contact with the lead tank. This causes internal short circuits, shortening the life of the plates and involving considerable expense for renewing the hard rubber liners.

In sealing our jars we first convex our covers so as to make the vent plug the high point. This prevents dirt and foreign matter from being washed into the jar. We use a form "H" soft rubber bushing of good quality in the cover around the terminal post.

This bushing serves both as a seal and as a buffer, which protects the jar and the sealing compound which holds the cover in place.

A lead antimony cover has recently been placed on the market for use with the hard rubber jars, which has a double groove in which plastic sealing compound is placed; this results in the jar being automatically sealed when the cover is put in place. This lead cover also protects the top of the jar, where most of the breakage occurs.

## Finnigan's Automatic Train Control

**G**EORGE P. FINNIGAN, of Richmond, Va., who made extensive experiments on the Interborough Rapid Transit Lines in New York City in 1910 and 1911, and later for two years on the Pennsylvania Railroad between New York and Philadelphia, is still in the signaling field, and his design of train control apparatus, which was the first to employ a permanent magnet on the roadway, is well known to many signal engineers. He has no installation in service at the present time, but he has favored us with a drawing which illustrates the essential electrical principles of his system. This we shall briefly describe.

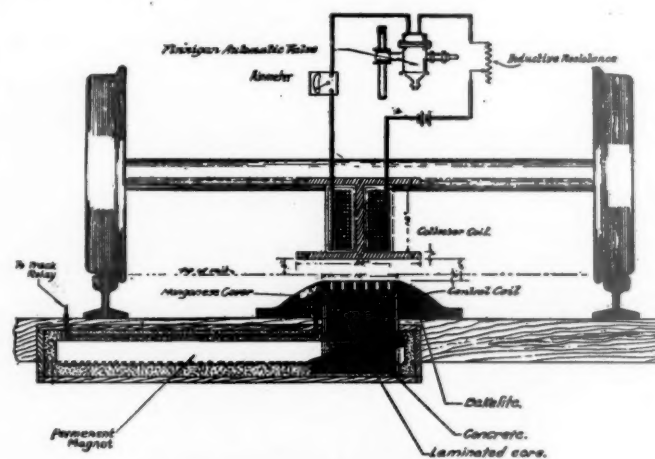
A permanent magnet, in the roadway, when uninfluenced by the condition of the block ahead causes an application of brakes; but when its power is counteracted by an electromagnet, which is energized when the section ahead is clear, the application of brakes is prevented. The arrangement is "normal danger." The permanent magnet is fixed in a wooden box at the level of the ties, the box being packed with cement to afford all necessary protection to the magnet. The box is about 5 in. by 6 in. and about 4 ft. long, extending from the center of the track to the end of the tie at one side. The electro-magnet on the roadway is indicated in the drawing as a "control coil." Its winding surrounds a laminated pole-piece which extends upward, the top of the outer case being at a height 1 in. lower than the tops of the running rails. This winding is energized by a current controlled by the track relay of the section to be protected.

The iron bar, shown in an inclined position, clamps the

pole piece to the permanent magnet. All this apparatus is thoroughly waterproofed.

The collector coil on the locomotive passes at from 4 in. to 6 in. above the roadway apparatus. This collector coil is a part of a closed circuit (energized by a battery consisting of a single dry cell) which controls the Finnigan automatic air valve shown at the top of the drawing. The inductive resistance in this circuit, shown at the right of the drawing, is adjustable, and its function is to determine at what speed the train may pass a control point without an application of the brakes.

The track apparatus is, of course, located full braking dis-



Finnigan Automatic Train Control

tance to the rear of the entrance of the section to be protected.

Assuming a train approaching a control point when the track relay governing the roadway magnet at this point is closed (section ahead clear), the current in the electro magnet diverts the lines of force of the permanent magnet so that they do not affect the engine coil (at any speed).

With the governing track relay opened (section ahead occupied by a train) the flux of the permanent magnet, acting on the engine-carried collector coil affects the engine circuit in accordance with three elements: (1) The speed of the train (above or below a predetermined rate), (2) the number of turns of wire in the collector coil, and (3) the volume of the lines of force from the permanent magnet cut by the engine-carried coil.

Assume that trains are not to be stopped unless moving at 5 miles an hour or faster; that at that speed the train generates  $1\frac{1}{2}$  volts, and that the engine battery has a potential of  $1\frac{1}{2}$  volts; the E M F generated in the train circuit by the passage of the train then will cause the battery to react, and the air valve will function.

At any speed below five miles an hour the E M F generated will be insufficient to affect the engine-carried battery and no brake application takes place.

It will be noted that all these operations take place without requiring the movement of any part, or the opening or closing of any electric contact.

**BAGGAGE TRANSFER CHARGES** in New York City are the subject of a complaint which has been made by the Merchants' Association to the Public Service Commission of the State, and on which a hearing was held this week. The complaint is that \$1.25 has been charged for carrying a suit case from the Pennsylvania Station to a hotel not far away. To carry a trunk to Brooklyn from a station in Manhattan, a distance of perhaps 2 miles, it is said a charge of \$2 has been made, whereas the normal rate would not be over \$1.40.



# Nothing Very New About the Plumb Plan

Only Another Variation of a Delusion Which Has Wrought  
Havoc Many Times in the Past

By Charles Frederick Carter

Author of "When Railroads Were New," "Big Railroading," Etc.

**Y**ES, THE PLUMB PLAN has a past; such a large and lurid past that railroad men, having due care for their reputations, should think twice before recognizing it in public.

Glenn E. Plumb, general counsel of the Railway Employees of America, you remember, has claimed to be the originator of a "plan" by which the government, meaning the representatives whom you elected by your votes, is to buy the railroads from their present owners and hand them to the men who work on the railroads to have and to hold till death or the divorce court do them part, or words to that effect. It will cost only twenty billions, more or less. Who pays it? Why, the public. Who's the public? Let's see: In July, 1919, there were 1,894,287 names on the railroad payroll. The average family is 4.5 persons, so these railroad men represent approximately one-eighth of the population of the United States, and so will have to pay a pretty sizeable share of that twenty billion dollars themselves.

## Look Before You Leap

That will be easy, say you? The railroad men, being the owners of the roads, will allow themselves generous salaries. They will merely take money out of their left trousers pocket and transfer it to their right vest pocket. The only difficulty about such a financial transaction is that it doesn't work; the change is pretty sure to slip between your fingers in transit. On the theory that it is just as well to look before you leap, lest in getting out of the frying pan you land in the fire, suppose we give this Plumb plan the once over.

In the first place, it isn't Plumb's plan at all. Glenn simply kidnapped it in France and contrived somehow to smuggle it past the immigration authorities. He has dolled it up in mellifluous verbiage, to be sure, and has put a new gore in the skirt and tacked a flounce around the bottom, providing that the government, meaning the elected representatives of the railroad men, and the public, including a large proportion of railroad men, are to have an equal voice with the railroad men who own the roads in their management. These attempts at disguise do not alter the essence of the proposal in the slightest degree. Any one who cares to take the trouble can find the so-called "Plumb plan" photographed, finger-printed, bertilloned and pedigreed in the rogues' gallery of history.

"Plumb plan's" maiden name was "syndicalism," which is the French adaptation of socialism, which, in its modern form, was made in Germany. The socialist idea is for the state to own everything, including the people who constitute it; the syndicalist scheme is to use the state as an instrumentality through which to take possession of all property and hand it over to the workmen employed thereon, the men in each particular factory to have all they can make out of it without the formality of paying rent to the owners. It's a beautiful idea from the point of view of the employee who labors under the delusion that he has nothing to lose and everything to gain; but will it work?

Well, let's see what history has to say on this point.

Seventy-four years ago there was another revolution in France. The people had been fascinated by the misrepresentations of glib-tongued persons with a passionate antipathy to work who assured their dupes that all they had to

do was to kill everyone they caught with a clean collar on, after which they would be free to set up a "Dictatorship of the Proletariat." You probably are fed up on this line of talk, somewhat more than enough of which has been heard in these United States. But, any way, those Frenchmen overthrew the government and for the time being "The Proletariat," as Lenine calls people who do manual labor, found themselves in control of the nation's destinies.

The professional agitators had attempted to convert the people to socialism; but those Frenchmen were clever enough to understand that state socialism meant nothing more nor less than state slavery, and slavery in any form did not appeal to them. So they hit upon a new solution.

## Plumb Plan in France in 1848

Louis Blanc, a member of the revolutionary government of 1848, believed, or pretended that he believed, that all wealth was produced solely by manual labor, a theory vociferously asseverated in America in 1920. Therefore, everything belonged to labor, not to the state. They would take possession of their own. The factories would be owned and operated by the employees who would have all they could make. The miners were to own and operate the mines and put the proceeds in their own jeans; the railroad men were to own and operate the railroads as their very own, precisely as Friend Glenn would have the railroad men of America do. Every detail of it was worked out in France before Glenn was born. Capital was to be totally abolished, for according to the syndicalist idea, as well as according to socialist doctrine, it had no right to exist.

Being a man of influence Blanc had ample power to give practical shape to his theories. The first thing to be done was to establish the principle of syndicalism, or Plumb planism, as it is known on this side of the Atlantic, by law. This was done by the decree of February 25, 1848, which was as follows:

"The provisional government of the French Republic binds itself to guarantee the existence of the workmen by means of work. It binds itself to guarantee work to every citizen. It recognizes the right of workmen to unite and to enjoy the fruits of their toil."

The next day another decree completing the Plumb plan was promulgated as follows:

"The provisional government of the French Republic decrees the immediate establishment of national workshops. The minister of public works is charged with the execution of this decree."

## Tried Out Under Ideal Conditions

Now take particular notice that this syndicalist (Plumb plan) experiment was tried out under ideal conditions. Everything was in its favor. If it did not work failure could not be attributed to any untoward circumstances, but to inherently wrong principles. You need not take my word for the results of this great experiment. Just get down your French histories, or go to the nearest public library and check up my statements.

"Ateliers Nationaux," which is as near as a Frenchman can come to saying "national workshops," were opened at once. The lucky workmen who found themselves men of

property over night, hustled out and obtained certificates that they were inhabitants of the Department of the Seine, which they presented to the mayor, who thereupon gave them an order for admission to a workshop. If the applicant was received and employed by the workshop he immediately received an order for 40 cents for his day's subsistence; if he was rejected he received only 30 cents. This, naturally, made him feel pretty small, after having done his share to abolish capital. From such incidents originated an Americanism much in vogue twenty years ago—to "Look like thirty cents."

Nine and a half hours were to constitute a day's work. Those untutored peasants could hardly be expected to be sufficiently advanced to put the six-hour day, five-day week idea in force at the first crack out of the box. However, the working hours were merely nominal; actually they were a go-as-you-please affair. Naturally this made a hit. Men rushed in from all quarters, so that by June, 1848, the Ateliers Nationaux had enrolled 125,000 workmen.

### An Impossible Plan

It would be as needless as wearisome to take up all branches of this grand experiment. Let a single example suffice. The tailor shops started under exceptionally favorable circumstances. The Hotel Clichy, a debtors' prison, was converted into a workshop at government expense and turned over to the workmen free of charge; that is to say, they got their capital for nothing. Next, they received from the government an order for 25,000 uniforms for the National Guard. In other words, they not only obtained capital for nothing, but they did not have to pay for the business ability to seek and to find a market for their product. Finally, they obtained free of charge from the government a supply of cloth, that is, their raw material, so they did not need credit. Could anything more ideal be imagined? Those Israelites who were fed with manna from heaven had nothing on those French workmen in '48, did they? And, naturally, those tailors got rich quick and retired to a country where capital still had a few rights, didn't they?

Not so you could notice it, they didn't. Let me tell you what happened. The ordinary contract price paid under the old dispensation before the workmen had been emancipated from the despotism of capital was 11 francs a suit. The workmen in the Ateliers Nationaux, with no overhead charges, no expenses of any kind to eat into their receipts, obtained the same price as their former masters who had to pay wages, rent, interest and all the rest of it and still make a profit if they could. Furthermore, the workmen in the Ateliers Nationaux received a subsistence allowance of 40 cents a day. When the job was done they were to divide the profits exactly as Friend Glenn proposes that American railroad men shall divide net railroad earnings after they have received them as a free gift from the government and have helped themselves to all the wages they want. The case is an exact parallel. Now observe what happened:

"The accounts were squared. Eleven francs per suit for so many suits came to so much. Subsistence money at 40 cents a day had to be deducted. The balance was to be divided as profit. Alas! The balance was a loss, not a gain. Subsistence money had been paid out equal to rather more than 16 francs a suit, instead of the 11 francs the former masters received, and out of which they paid all expenses, including good wages to their workmen instead of a daily pittance for bare subsistence."

Victor Hugo thus sums up the result: "The national workshops have proved a fatal experiment. The wealthy idler we already knew well; you have produced a person a hundred times more dangerous to himself, the pauper idler."

The same story with minor variations was repeated in all the Ateliers Nationaux until the National Assembly was forced to close the shops. The closing process cost France four days and nights of street fighting in which twenty thou-

sand lives were sacrificed. There you have the story of France's experience with syndicalism, alias the Plumb plan, seventy-four years ago. What do you think of it?

### Another Experiment

To clinch the moral listen to this tale of a private experiment with the Plumb plan which was also staged in France. The story is summarized from an account by Thiers, the famous historian. The owner of a great engine factory lent the works to his men and agreed to buy their output at 17 per cent above cost. The men were to manage the works themselves. That is they took over a going concern with a certain market and a certain profit. Pretty soft, eh?

Well, note what happened. The first thing those men did was to increase wages for the poorer paid workers and lower the wages of the better paid ones, as the railroad reformers would have us do. There has been a lot said about the outrageous salaries paid railroad officers here, you know. Also a lot more about the "aristocrats of labor," meaning the enginemen. In fact, every detail, under which it was tried out, is matched in the pages of history.

The result of these reforms was a daily tumult in the shop. The men took a holiday whenever they felt like it, and they were very careful not to over-exert themselves when they did honor the plant with their presence. But those were ignorant foreigners, you say? My friend, there is just one thing in this world of eternal change which never changes, and that is human nature. As it was in the beginning, it is now and ever shall be. Let us resume Thiers' narrative.

The workmen elected their foremen as they now do in Russia, with the result that they were changed two or three times every fortnight. Under their old employer the payroll aggregated 367,000 francs in three months; under the new dispensation it was only 197,000 francs for the same period, and the rates were much higher, at that. Furthermore, all the good workmen had left; so that at the end of the three months the association of workmen was bankrupt, the experiment was an utter failure, and the capitalist owner, who had been so blithesomely condemned as a worthless excrescence on the body politic resumed control and the workmen, such as were left, were humbly grateful for a chance to become "wage slaves" again.

### Capital Replaced by Poverty

If these French experiments standing alone are not sufficiently convincing, let me remind you of Gladstone's series of Irish land acts which took rights valued at \$30,000,000 from land owners and gave them to tenants. This was syndicalism, that is, Plumb planism, applied to the land, for it took property from capitalists—that is, the land owners—and gave that property to the workers. If the syndicalists and the socialists and the Plumb planists are right, then Ireland ought to have been richer as a result of this operation.

Well, it wasn't. In the thirty years following the Gladstone land acts, 1,200,000 Irish emigrated, the population decreased by 1,000,000 and the country was poorer than before. Gladstone had made the rich poor all right enough, according to formula; but he had also made the poor still poorer. He had destroyed credit and security and frightened capital out of Ireland. Capital was replaced by poverty; for capital no longer competed for labor.

Such incidents are by no means exceptional. The same dreary tale of delusion, failure and misery has been reenacted many, many times in Europe, in the United States, in South America and elsewhere from the dawn of history to date. Wherever socialism or syndicalism, which are but aliases for the Plumb plan, has been tried the end has infallibly been disaster.

Now what do you think of syndicalism, otherwise known as "The Plumb Plan"?



# Observations of a Transcontinental Traveler

## Some of the Things on Which the Public Judges the Roads—Their Effect on Traffic

By William S. Wollner

A TRIP of 18,000 miles over seven of the country's most important railway systems gives the observing traveler an opportunity to come in contact with the attitude of the traveling public and railroad employees toward the national rail transportation problem that unfortunately few railroad executive officers are able to secure at first hand. As a matter of choice, or because their work requires it, general officers, and even the more important division and subordinate officers on some roads, travel in business cars isolated from contact with their roads' patrons, unable to learn, or indifferent to the opinion of the service their roads are rendering to the very people who furnish the revenue that makes the road's operation possible.

It should not be lost sight of that while the public judges the roads through its most intimate contact with them (as passengers), it is this same public that in the final analysis will determine whether the roads are to continue under the present form of management and control or whether some other method of operation shall be experimented with. It is also this same public which, as individuals, pays the country's freight bills as shippers, consignees, or consumers.

Assuming that it is a fact that almost all competitive tonnage is secured through "good will," is there any better way in which to impress a prospective shipper with the road's efficiency than when he is a passenger? The things that were observed on this 8,000-mile trip seem to indicate that at least some managers do not appreciate the value of comfortable, courteous passenger service as a feeder of freight tonnage, or that they are unfamiliar with the manner in which their passenger service is being handled.

### Are 10,000 Tons Annually Worth Going After?

Nearly 3,000 miles of the trip which these notes cover were made in company with a man who is the head of a firm that ships between 5,000 and 10,000 tons of freight by rail annually and who is prominently connected with other enterprises whose combined tonnage greatly exceeds this figure. In addition, he is a leader in community affairs and a large owner of railroad securities. In view of his status as a shipper, security owner and community leader, this man's reaction to the treatment he received as a passenger is of especial interest. As he was accompanied by his wife and a young daughter, he required the use of a drawing room and an additional section. He was unable to secure these accommodations on the best train between the starting point of his trip and its destination although he allowed a few days choice in the date of starting. As a consequence he was compelled to travel on the next best train, which his family referred to as "limited in name only."

This train leaves its initial station at 6:30 p. m., but when during the first night's unsuccessful effort to sleep upon a mattress with a lump in its center the lady of the party attempted to secure a drink of water, she found that the reservoir was empty. The drawing room was also devoid of towels and it seemed impossible during the trip to get the porter to keep the room supplied. The party had been generously supplied by friends with tropical fruits and other things that required being kept on ice for their proper care but neither the dining car nor train crew could advise how this could be done. It is impossible to believe that a far-seeing management would permit as important a patron and

as influential a citizen to gain the opinion of the operation of its property that this man gained, and it must therefore be assumed that it has no knowledge of travel conditions on this particular train.

It would be unfair to leave unstated the fact that passengers are receiving far better service than they did a year ago. An outstanding improvement is that trains run on schedule and the annoying delays of the past no longer are the order of the day.

### Ticket Sellers Not Salesmen

Do railroad managers expect their ticket sellers to be salesmen in the generally accepted meaning of the term or do they reserve this function for "passenger agents?" A man who found that he must make a hurried trip to a destination several thousand miles distant called at a consolidated ticket office to purchase his ticket. The purpose of his trip required that he visit certain cities en route but he found that the ticket seller was unable to tell him how to arrange his trip so as to include these cities. He consulted other ticket sellers with no better success and then informed the writer of his predicament. The writer telephoned to the passenger agent of a road over which a portion of the trip must be made and a traveling agent was immediately dispatched to the prospective passenger's office who furnished him with all the information he required.

This prospective passenger was a man who had held important positions in the engineering department of railroads for years, but he did not know that railroads provided this service for prospective passengers. Subsequent investigation disclosed the fact that travelers are entirely ignorant of the services that city, district and traveling passenger agents are prepared to render them.

Upon arrival in Chicago early one Sunday morning the writer found that the completion of his business there would permit of his leaving for home the following evening. Having planned to travel over a system favorably known for its treatment of passengers, he telephoned to its depot office to reserve space. He was informed that no reservation could be made nor could he even learn if accommodations were available, as all charts were in the consolidated ticket office and the consolidated office was of course closed on Sunday. Later investigation proved this ticket seller's statement true and that no reservations can be made on Sunday for a later date over this particular road.

Calling the following morning upon the ticket seller for this road in the consolidated office he obligingly showed the writer his charts, explaining that he was unable to say whether some of the space that was assigned to other offices would be used, although these offices had not reported its sale. He said that if the writer would return late in the afternoon he would endeavor to learn if the space were available. Upon being informed that arrangements for the trip must be completed before noon and that the traveler would therefore have to travel over another route, the ticket seller turned away from the prospective passenger without comment and replaced the chart in its pigeon-hole. It should be remembered that the writer posed as a "pay" passenger and the ticket he wished to purchase would have cost nearly a hundred dollars.

Later, when the writer applied at the depot ticket office of

the same company to learn if he could secure accommodations on a train leaving at 10:30 p. m. he showed the ticket seller the pass on which he intended to travel and was informed that the rules of the company prohibited the reservation of space until one hour before the time the train was scheduled to leave. The trip that was to be taken over this particular road was over 3,000 miles in length and while the necessity for this rule is understood, it seems unfair to expect a busy railroad man to wait until 9:30 at night to learn whether he will be able to start on a long trip of this kind. Incidentally, if this treatment were accorded a man in a position to route traffic from a connecting road it might lead to a discrimination against the road according to this treatment.

### Dining Car Service

The railroads could engender a kindlier feeling on the part of the general public by giving a more popular service in dining cars and, incidentally, they would find this type of service financially more profitable. It seems almost ridiculous to attempt to give a service on a par with the highest grade hotels on a train carrying two standard Pullmans, four or five tourist cars and several day coaches. It is certain that the majority of people who travel in tourist cars and long distances in chair cars are not accustomed to the class of service given in the diner and can ill afford to pay the prices that must be charged when such a service is attempted.

Some of the roads are trying to popularize their dining-car service by serving "plate meals," but the prices placed on these meals are too high to be partaken of by the tourist car and chair car traveler, and on some roads at least the proper equipment is not provided for efficient service. An outstanding exception to this criticism of dining car service is that of the Baltimore & Ohio whose seventy-five cent commercial traveler's club luncheon offers the opportunity for a person to secure an entire meal at this price. Food and service have been especially provided for this excellent luncheon. The dollar and a quarter dinner served on this road, insofar as the writer is aware, has its equal in no other dining car in the United States.

Plain, wholesome meals served in the simplest possible fashion will not only attract diners from the tourist and chair cars, but will prove pleasing to Pullman passengers also and will prove financially profitable and a big drawing card for the road that undertakes to experiment in this direction. Such a service should, of course, not be attempted on de luxe trains or other trains carrying only standard Pullman equipment.

### Morale

The trip which these notes cover was made during the last two weeks of September and the first two weeks of October, or before the brotherhood executives had given their strike ultimatum. As indicative of the state of morale existing on the roads on which he traveled it may be noted that while a train was traveling as a first-section with a second-section following it through the blocks of automatic block signal territory, the rear brakeman was in the smoking room of the second Pullman from the rear of the train with his coat, vest, collar and necktie removed, shaving, while the train conductor was asleep in a chair in the observation car.

A high-speed train left a large terminal four minutes behind its schedule because the fireman did not look back to receive the trainman's signal and the trainman responsible for giving this signal refused to walk several car lengths to give it verbally. At the end of the four-minute period the writer suggested to the trainman that he give the signal on the intercommunicating air signal which he did. During this period the fireman was hanging out of his cab window but did not look back for the signal.

Perhaps the best summing up of the state of mind of railroad men toward their jobs is the statement of the fact that

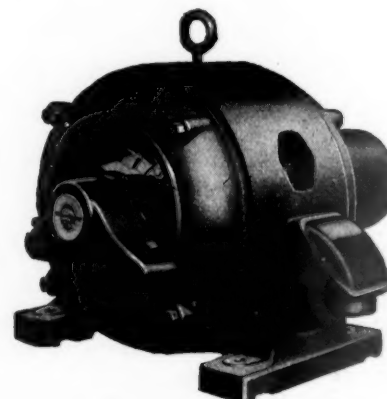
of the several hundreds of railroad employees with whom he spoke, but one mentioned his railroad in the possessive sense. When a rear brakeman was questioned as to the ownership of tracks running out of a large joint terminal, he proudly stated, "Oh, yes, *we* own our own tracks." Although the writer asked many questions designed to give the simple test of whether employees thought of their jobs and roads in the possessive, or the detached sense, this was, as stated above, the only case in which the possessive sense was used.

### Conclusion

The public judges the success of the present form of railroad operation and management through its most intimate contact with the service the road renders, that is, as passengers. Freight service must be maintained at its most economical efficiency, but no road can afford to give less than perfect passenger service. The unreasoning public expects trains to be awaiting its bidding at such time as it may desire to travel and to get it to its destination as rapidly and comfortably as it is possible to do so. It is, of course, impossible to give the frequent train service and in some instances the fast passenger service that the public demands, but it is essential to the public's opinion of how railroad management is discharging its stewardship that passengers should be transported comfortably and conveniently and that they should come in contact with nothing but the most courteous employees.

### Improved Polyphase Motors

POLYPHASE motors possessing a number of new features have been developed by the Wagner Electric Manufacturing Company, St. Louis, Mo. Improved ventilation is obtained by directing the ventilating air through a large number of definite paths. The coils are wound in phase groups without spliced connections, and they are impregnated



New Polyphase Motor

with insulating compound. Easy connection to external circuits is provided by a pull box attached to the motor into which the motor leads are brought with suitable terminals. An unusually large shaft is provided which decreases deflection and vibration. Quiet operation is obtained by mounting the large shaft in correspondingly large bearings, by arranging the coil slots on a spiral and by clamping the laminations of both stator and rotor under enormous pressure. The bearings are mounted in dustproof housings.

GIVE THE RAILROADS a free hand to work out their own problems. Railroad and coal mining costs must come down before there can be a permanent prosperity, although business is on the upgrade, and has been since July, 1920.—Charles N. Schwab.



## General News Department

The Western Maryland announces that its track repair work has been let to the Dickson Construction and Repair Company, of Youngstown, Ohio, which was formed recently to do similar work on the roadway of the Ohio Region of the Erie Railroad.

The Van Sweringen Company, Cleveland, Ohio, which owns the controlling interest in the New York, Chicago & St. Louis, has acquired control of the Toledo, St. Louis & Western, according to an announcement made by O. P. Van Sweringen at Cleveland on March 8.

The Western Railway Club will hold its next meeting on March 20, at the Great Northern Hotel, Chicago, at which time there will be a further general discussion of the paper, "Some Factors in the Business of Owning Locomotives," which was presented at the February meeting.

The State Highway Commission of Wisconsin has established a railway department, with M. W. Torkelson, former bridge engineer of the commission, in charge. The work of the new department will consist chiefly in the re-location of highways, with special consideration given to the elimination of grade crossings of railroads.

The American Railway Engineering Association will hold its annual dinner in the gold room of the Congress Hotel, Chicago, on Wednesday evening, March 15. The speakers will include General R. C. Marshall, junior general manager of the Associated General Contractors of America, Washington, D. C., and formerly chief of the construction division of the United States army; Hon. James A. Mulligan, K. C., Sudbury, Ontario, and Gus W. Dyer, professor of economics at Vanderbilt University, Nashville, Tenn.

### Store Door Delivery

The New York Railroad Club at its meeting at the Engineering Societies' Building on Friday evening, March 17, will have a symposium on store door or direct delivery. The question will be discussed from a variety of angles by men who have had experience with this problem or have given it considerable study.

### Commission Asks Information on Power Brakes

The Interstate Commerce Commission, which has ordered a proceeding of inquiry and investigation of the use of power brakes, has addressed an order to the railroads calling for detailed information to be furnished by April 1 regarding the operation, inspection, testing and maintenance of air brake equipment, including statistics regarding accidents resulting from failure properly to control speed of trains on grades.

### Atlantic City Conventions in June

Steady progress is being made in developing the programs for the June conventions which will be held at Atlantic City. Division V, Mechanical, A. R. A., will meet from June 14 to 21 inclusive. Division VI, Purchases and Stores, A. R. A., will hold its meeting on June 19, 20 and 21. The Association of Railway Electrical Engineers will hold its spring meeting at the Dennis Hotel on Monday, June 19. The exhibit committee of the Railway Supply Manufacturers' Association met at Pittsburgh yesterday afternoon to assign space to those who have already made applications. Up to March 1, 240 such applications had been received, requiring in the neighborhood of 80,000 sq. ft. of space. A particularly large number of machine tool companies have applied for space in Machinery Hall, and all of the space in this section has been applied for.

### Operating Statistics for 1921

The Interstate Commerce Commission has issued its summary of freight and passenger service operating statistics for Class I railroads for the year 1921, which shows for 180 roads a total of 344,343,000,000 net ton miles of revenue and non-revenue freight as compared with 499,125,000,000 in 1920. The average miles per car per day for the year was 22.4 compared with 25.1, the net ton miles per car day 389 as compared with 498, the net tons per loaded car 27.6 as compared with 29.3, the train speed 11.5 miles per car as compared with 10.3, the locomotive miles per day 49.9 as compared with 62.5, and the traffic density, the net ton miles per mile of road per day, 4,048 as compared with 5,280.

### The Campaign Against the Full-Crew Law

The cost of the full-crew laws of New York, New Jersey and Maryland since they took effect has aggregated \$24,000,000 and active efforts are now going on to secure the repeal of these laws in these states. This and other interesting facts are set forth in a circular which has been issued by the Pennsylvania Railroad. The only definite accomplishments in the three legislative campaigns thus far are a vote in the Senate of the Maryland legislature in favor of repeal of the law; and a similar vote in New Jersey. The full-crew law of Pennsylvania was repealed last year and that of Indiana before that; and in neither of these states has there been any complaint since the regulation of the number of men in crews was put into the hands of the state railroad commission.

### Traffic Division—A. R. A.

G. H. Ingalls, New York City, chairman, announces that the general committee of the Traffic Division of the American Railway Association has appointed three standing committees as follows (the first-named, in each, being chairman):

#### ON STANDARD CONTAINERS, PACKING AND MARKING

R. C. Fyfe, chairman, Western Classification Committee.  
F. C. Macgly, assistant general freight agent, A. T. & S. F.  
R. G. Fagan, superintendent of freight protection, S. P.  
James Menzies, freight traffic manager, A. C. L.  
F. W. Smith, chairman, Official Classification Committee.  
J. E. Crosland, chairman, Southern Classification Committee.

#### ON WEIGHING AND INSPECTION OF FREIGHT

A. S. Dodge, superintendent, Western Weighing and Inspection Bureau.  
George Merki, manager, Central Weighing and Inspection Bureau.  
W. R. Sheehan, manager, Transcontinental W. & I. Bureau.  
A. B. Cade, manager, Transcontinental Weighing and Inspection Bureau.  
I. G. Markey, manager, Southern Weighing and Inspection Bureau.  
W. J. Edwards, manager, Trunk Line Freight Inspection Bureau.  
G. C. Ransom, chairman, Canadian Freight Association.  
A. W. Epright, superintendent of scales, Pennsylvania Railroad.  
Oliver Maxey, general supervisor claim prevention, Rock Island Lines.  
F. C. Macgly, assistant general freight agent, A. T. & S. F.  
C. H. Mann, superintendent of scales, Southern Railway.

#### ON CAR SERVICE, DEMURRAGE AND STORAGE

Rob't C. Wright, general traffic manager, Pennsylvania Railroad.  
Fred Zimmerman, vice-president, C. I. and L.  
B. Campbell, vice-president, N. Y., N. H. & H.  
H. E. Pierpont, traffic manager, C., M. & S. P.  
W. A. Rambach, freight traffic manager, M. P.  
G. W. Luce, freight traffic manager, S. P.  
A. R. Smith, vice-president, L. & N.  
D. W. Longstreet, traffic manager, I. C.  
C. T. Airey, vice-president and traffic manager, Central Ga.

### Sixteen Killed in Motor Bus at Crossing

Sixteen persons were killed and nine injured at Painesville, Ohio, on the night of March 3, when a New York Central express train, eastbound, crashed into a crowded motor bus at St. Clair street in that city. The railroad company issued a statement

that the crossing watchman was on duty at the time and signaled the driver of the bus with his lantern to stop. The flagman states that he began to give the bus driver this warning signal when the latter was still from 300 to 500 feet from the tracks, and the train had its electric headlight burning bright and clear; its whistle was sounded twice and the bell was ringing automatically. The driver was among the fatally injured.

### International Railway Congress

The Ninth Congress of the International Railway Association will be held in Rome, Italy, from April 18 to April 30. Besides the meetings of the five sections into which the Congress is divided the program includes the following: Banquet by the Italian government April 19; reception at the Capitole April 21; excursion to the Terni Hydro-Electric Works and various establishments April 22; excursion to Naples and Pompeii April 29 and 30; departure from Genoa on May 1 and excursion to the electric traction installations in special train to Modane.

The sections of the Congress are as follows: 1. Way and Works; 2. Locomotives and Rolling Stock; 3. Operation; 4. General; 5. Light Railways.

The following who have been appointed as delegates of the American Railway Association have arranged to attend the Congress: L. A. Downs, chairman, Division IV—Engineering (vice-president and general manager, Central of Georgia Railway); D. Z. Dunott, chairman, Medical and Surgical Section (chief surgeon, Western Maryland Railway); J. E. Fairbanks, general secretary; T. De Witt Cuyler, chairman, Association of Railway Executives; W. W. Atterbury, vice-president, Pennsylvania; George Gibbs, chief engineer electric traction, Long Island; W. J. Tollerton, general mechanical superintendent, Chicago, Rock Island & Pacific.

The following who have been appointed reporters for the American Railway Association on the subjects indicated also will attend: W. J. Tollerton, chairman, Mechanical Division, A. R. A. (general mechanical superintendent, Chicago, Rock Island & Pacific Railway); "Passenger Carriages," Earl Stimson, chief engineer, Maintenance of Way, Baltimore & Ohio Railroad, "Maintenance and Supervision of the Track;" Samuel O. Dunn, editor of the *Railway Age*, "Net Cost Rates."

The following will go as delegates of their respective railways: Delaware & Hudson, W. H. Williams, vice-president;

Illinois Central, A. S. Baldwin, vice-president, Hugh Pattison, electrical engineer, Donald Rose, European traffic manager; Lehigh & New England, William Jay Turner, vice-president and general counsel; Rollin H. Wilbur, vice-president and general manager, Henry H. Pease, secretary and treasurer; Long Island, Ralph Peters, president, George Gibbs, chief engineer electric traction; Pennsylvania System, J. V. B. Duer, electrical engineer, W. B. Wood, general superintendent, Illinois division; R. C. Morse, Jr., superintendent freight transportation, Eastern region, J. O. Hackenbush, superintendent, Schuylkill division; Philadelphia & Reading, A. T. Dice, president, F. M. Falck, general manager; Pittsburgh, Shawmut & Northern, H. S. Hastings, receiver.

George Gibbs is the American reporter on "Electric Traction," A. S. Baldwin on "Terminal Stations for Passengers," W. H. Williams on "Slow Freight Traffic."

Besides those mentioned above, the following American railway men have prepared reports: C. H. Ewing, vice-president, Philadelphia & Reading, "Construction of the Roadbed and of the Track;" W. C. Cushing, engineer standards, Pennsylvania System, "Special Steels;" G. A. Haggender, bridge engineer, Chicago, Burlington & Quincy, "Reinforced Concrete;" Howard G. Kelley, president, Grand Trunk Railway, "Freight Stations;" C. W. Crawford, chairman, General Committee, Section 5—Transportation, American Railway Association, "Interchange of Rolling Stock;" A. F. Banks, president, Elgin, Joliet & Eastern, "Workmen's Dwellings;" H. B. Spencer, former director of purchases, United States Railroad Administration, "Special Methods of Traction on Light Railways."

The headquarters of the American delegates will be at the Grand Hotel, a short distance from the Fine Arts Exposition Palace in which the sessions of the Congress will be held.

### Tentative Valuations

The Interstate Commerce Commission has issued a tentative valuation as of 1916 of the property of the Maine Central, in which it finds the final value of the property owned, 642 miles, to be \$44,020,662, and of the property used, 1,131 miles, including leased lines, to be \$61,091,384. This considerably exceeds the capitalization outstanding as of the valuation date, \$34,587,465. In addition there was held by or for the carrier \$2,881,643 of stock and \$2,015,500 of bonds. The in-

I. C. C. SUMMARY OF REVENUES AND EXPENSES FOR DECEMBER AND CALENDAR YEAR 1921

Item	December		12 Months	
	1921	1920	1921	1920
Average number of miles operated.....	235,170.42	234,708.98	234,912.85	234,423.77
Revenues:				
Freight .....	\$288,762,008	\$386,564,007	\$3,918,699,970	\$4,323,650,077
Passenger .....	88,669,910	114,830,002	1,153,752,002	1,287,423,443
Mail .....	10,014,096	8,711,525	95,810,375	150,816,975
Express .....	12,158,008	9,656,470	104,633,598	143,858,272
All other transportation.....	14,297,406	18,582,526	164,757,085	163,771,798
Incidental .....	9,686,082	11,769,559	118,799,853	150,470,050
Joint facility—Cr. ....	1,824,853	700,123	8,767,197	7,844,911
Joint facility—Dr. ....	390,070	233,882	1,987,865	2,418,281
Railway operating revenues.....	425,022,293	550,580,330	5,563,232,215	6,225,417,245
Expenses:				
Maintenance of way and structures.....	49,600,255	70,708,969	763,479,568	1,030,503,557
Maintenance of equipment.....	92,564,513	147,529,258	1,254,221,299	1,593,481,891
Traffic .....	7,100,051	7,515,271	84,186,263	73,797,532
Transportation .....	183,558,753	264,531,899	2,286,043,830	2,901,583,273
Miscellaneous operations.....	3,686,802	5,036,195	48,938,207	61,886,539
General .....	13,881,015	15,884,672	167,583,103	174,102,954
Transportation for investment—Cr. ....	1,511,800	437,012	6,973,029	5,029,060
Railway operating expenses.....	348,879,589	510,769,252	4,597,479,241	5,830,326,686
Net revenue from railway operations.....	76,142,704	39,811,078	965,752,974	395,090,559
Railway tax accruals.....	19,679,440	29,520,892	280,441,488	280,987,121
Uncollectible railway revenues.....	738,109	289,487	1,978,578	1,259,263
Railway operating income.....	55,725,155	10,000,699	683,332,908	112,844,175
Equipment rents—Dr. balance.....	3,391,354	4,745,815	52,330,115	35,078,830
Joint facility rent—Dr. balance.....	745,485	1,952,580	16,192,262	19,613,482
Net railway operating income.....	51,588,316	3,302,304	614,810,531	58,151,863
Ratio of expenses to revenues (per cent).....	82.09	92.77	82.64	93.65

<sup>1</sup> Includes \$2,571,874, sleeping and parlor car surcharge.

<sup>2</sup> Includes \$3,237,736, sleeping and parlor car surcharge.

Note.—Excludes Detroit, Toledo & Ironton, report not having been filed at date of compilation.

<sup>3</sup> Includes \$32,601,960, sleeping and parlor car surcharge.

<sup>4</sup> Includes \$12,014,911, sleeping and parlor car surcharge.



vestment in road and equipment as reported by the carrier was \$37,234,525. This is readjusted by the commission to \$35,814,267. The commission has also issued additional tentative valuations in which the final value is stated as follows:

		Used	Owned
Holton Interurban .....	1915	\$856,349	\$200,349
Portland & Southwestern .....	1915	.....	330,616
Labor & Northern .....	1918	124,181	120,000
Memphis Union Station .....	1916	2,341,551	2,340,757

### Popularizing Safety First

Starting on the first of the year, the Delaware, Lackawanna & Western introduced a system of posters which are issued and distributed weekly and contain, in addition to some pertinent messages on safety, a reproduction of some news event. They are patterned after the news-service picture-placards which are now seen regularly in many store windows and which feature the

• **LACKAWANNA** •

**SAFETY NEWS SERVICE**



**HAYS ACCEPTS \$150,000 MOVIE DIRECTORSHIP**

Official announcement has been made of the forthcoming resignation of Postmaster General Will H. Hays from Harding's cabinet to accept a \$150,000 salary as head of the American motion picture production industry. Mr. Hays is soon being "shot" after the announcement.

**Railroading is normally a safe occupation if men will only let their minds work normally while they are on duty. Heaven protect the man who violates the rules.**

latest news events pictorially. The safety message in the Lackawanna posters is printed in large type and in colors. It is short and to the point, as illustrated by that here shown. In this poster, the "news" is in black, and the safety message in bright green. These placards measure about 14 in. by 18 in. and are attracting considerable interest on the part of both employees and the public.

### Three Months of Freight Claim Payments

Figures of payments for loss and damage of freight during September, October and November, 1921, have been compiled and summarized recently by the freight claim division of the American Railway Association and are now available for publication. The total freight claim expenditures for the three months amounted to \$18,865,589, of which \$6,640,523 was incurred in September, \$6,441,925 in October, and \$5,783,142 in November, as compared with January, 1921. The November statement shows a decrease of 44 per cent and each month reveals a steady diminution in the amount paid out in claims, \$658,782 less being paid in claims in November than in October, as follows:

September .....	\$6,640,523
October .....	6,441,925
November .....	5,783,142

As compared with January, 1921, November shows a decrease of 44 per cent.

## Traffic News

Trunk line railroads have filed tariffs with the Interstate Commerce Commission effective on April 1, providing for a reduction of 28 per cent in the rates on iron ore.

C. A. Cairns, passenger traffic manager of the Chicago & North Western, has been elected chairman of the executive committee of the Western Passenger Association for 1922.

Testimony on the "Pittsburgh Plus" case continues to be heard by W. J. Bennett, examiner for the Interstate Commerce Commission, who opened a further hearing at Minneapolis, Minn., on March 6.

The Miami Valley Traffic Club, Dayton, Ohio, has elected the following officers for 1922: President, T. T. Webster; vice-presidents, R. B. Mann, H. T. Ratliff, A. H. Finlay, D. O. Searles and W. W. Winship; treasurer, R. H. Hagerman; secretary, Morris T. Otto.

The Senate committee on interstate commerce, which had called a meeting for March 4 to consider its action on the Capper and similar bills in view of the Supreme Court's decision in the state rate cases, was unable to get a quorum. Chairman Cummins is forming a sub-committee to consider the matter.

The Canadian Pacific and the Minneapolis, St. Paul & Sault Ste. Marie will place in effect on May 15, summer round trip fares from Chicago to Vancouver, Victoria, Portland and Seattle, at \$86, or about \$30 less than last year. Routes are through Canada going and through the United States returning, or vice versa; also a round-trip fare of \$104 has been authorized to California points.

The Chicago Great Western has withdrawn its announcement that it is about to reduce passenger fares between Chicago, St. Paul, and Omaha, as its controversy with competing roads has been settled by their granting to the Great Western and to the Minneapolis, St. Paul & Sault Ste. Marie additional immigrant privileges to and beyond St. Paul and Minneapolis and excursion rights from Chicago and points in Iowa to these northern cities.

Home-seekers' rates of a one way fare plus \$2 for the round trip will be placed in effect on the first and third Tuesdays in each month until November by the Chicago, Milwaukee & St. Paul, the Chicago & Northwestern, the Chicago, Burlington & Quincy and the Chicago Rock Island & Pacific to points in South Dakota and North Dakota; in Washington and Oregon except to certain points in the eastern part; and to all points in Montana and Idaho. The tickets will be open to public purchase and will be good for 21 days, with liberal stopovers.

E. S. Briggs, chairman of the National Perishable Freight Committee, Chicago, has resigned to become manager and secretary of the American Fruit & Vegetable Shippers' Association, with headquarters at Chicago, succeeding R. Cumming. Mr. Briggs has been in railroad service since 1889, serving the Missouri, Kansas & Texas Railway for about 17 years. In 1905 he was made assistant general freight agent of that road at Houston, Texas, and in 1910 was appointed to a similar position at St. Louis. In 1914 he went to the Pacific Fruit Express as traffic assistant at San Francisco; and on May 1, 1917, he was appointed traffic manager of that company. In July, 1920, he was selected by the railroads to take charge of the newly formed National Perishable Freight Committee as its chairman.

### Coal Production

The output of soft coal during the week ended February 25 is estimated by the Geological Survey at 10,348,000 net tons, a slight increase over the week preceding in spite of the local observance of Washington's Birthday as a holiday.

## Commission and Court News

### Interstate Commerce Commission

The commission has issued an order modifying in certain particulars conditions in its export bill of lading upon recommendations made by the United States Shipping Board.

The commission has suspended until July 3 the operation of certain schedules contained in a supplement to Chicago & Alton and Illinois Traction System tariffs which provide for reductions in rates on grain from points in Illinois to New Orleans, and other Gulf Ports for export.

The commission has issued a decision finding the divisions of joint rates on certain traffic moving between stations on the Chicago & Eastern Illinois and stations on the St. Louis-San Francisco via Chaffee, Mo., unreasonable and inequitable and has prescribed the divisions to be observed for the future.

The commission has suspended until July 1 the operation of schedules contained in Agent E. B. Boyd's tariff which proposes reductions in the rates on sugar from points in Colorado, Idaho, Kansas, Nebraska and Utah to various destinations in Illinois, Iowa, Minnesota, Wisconsin, the Dakotas, Oklahoma, and Upper Peninsula of Michigan.

The commission has reopened the case involving intrastate rates within the state of Illinois, on the petition of the Northern Illinois coal operators for further hearing, for the purpose of determining whether or not the present intrastate rates on coal within the state of Illinois are unduly preferential of intrastate traffic and shippers and of localities within the state, unduly prejudicial to interstate traffic and shippers and to localities outside the state, and unduly, unjustly and unreasonably discriminatory against interstate commerce; and for the purpose of considering whether the orders heretofore made should be modified.

### United States Supreme Court

#### Claim for Express Rates for Carrying Gold as Mail

A claim was made against the government by the New York, New Haven & Hartford for its proportion of express rates for carrying \$5,000,000 in gold from Philadelphia to Boston in 1914, and the passenger fares for seven men acting as guards. The gold was in 1,000 sealed bags, in 167 locked mail pouches. The Treasury prepaid the postage required for fourth class mail matter, at parcel post rates, amounting to \$420. No protest was made by any carrier at the time. The railroad's claim was for \$5,020.65. The Court of Claims dismissed the claim. The Supreme Court of the United States affirms that judgment, rejecting the contention of the railroad that the transaction was not mail service since "the service, rightly or wrongly, was demanded as mail service, was rendered as mail service, and was paid for without protest as mail service."—Opinion by Mr. Justice Holmes. Decided February 24, 1922.

#### Texas Suit Dismissed

The United States Supreme Court on March 6 dismissed the original suit filed by the state of Texas, which asked the Court to set aside orders of the Interstate Commerce Commission under the transportation act and decisions of the Railroad Labor Board and which also attacked the constitutionality of the transportation act. The court held that all suits to set aside, annul or suspend orders of the Interstate Commerce Commission must be brought in the district courts, and the United States made a defendant. Justice Van Devanter, who delivered the unanimous opinion, also said that the bill disclosed "insuperable obstacles to our entertaining it on any ground." He also directed attention to the fact that many of the questions involved have been disposed

of in the New York and Wisconsin passenger-fare cases decided last week. The bill charged that the commission had placed the carriers of Texas in a territorial rate group and had approved a general increase in their rates regardless of the authority of the state, had authorized the abandonment of certain lines within the state and had exercised a supervision over the issuance of securities. All of these acts, it was alleged, infringed upon the powers reserved to the state. Referring to that part of the bill which sought to question the constitutionality of the provisions providing for the Railroad Labor Board, the court pointed out that the carriers and their employees have put the board's decision into effect and while they would have great concern in any decision of the suit, they were not made parties to the bill.

#### Unexpected Negligence of Fellow Servant

##### —Risk Not Assumed

In an action under the federal Employers' Liability Act for the death of an employee, caused by a derailment, held by the court to be due to the negligence of the engineman in disregarding a signal to stop at the derailler, the Supreme Court of the United States has reversed the judgment of the Pennsylvania Supreme Court holding that the deceased had assumed the risk of such negligence. The opinion, by Mr. Justice McReynolds, reads, in part: "In action under the Federal Act the doctrine of assumption of risk certainly has no application when the negligence of a fellow servant, which the injured party could not have foreseen or expected, is the sole, direct, and immediate cause of the injury. To hold otherwise would conflict with the declaration of Congress that every common carrier by railroad while engaging in interstate commerce shall be liable . . . when death results from the negligence of any of the officers, agents, or employees of such carriers."—*Reed v. Director General*. Decided February 27, 1922.

#### Thirty Days' Notice of Claim

In an action for personal injuries to a shipper riding on a drover's pass providing for notice of claim to the general manager within 30 days, it appeared that the plaintiff was in a hospital for about 30 days under the care of a doctor employed by the road, but was not disabled from giving the notice. He failed to give it, however. The district court directed a non-suit and its judgment was affirmed by the Circuit Court of Appeals (264 Fed. 664). The Supreme Court of the United States has affirmed that judgment, holding that the requirement as to notice was valid. Knowledge on the part of the railroad's employees was not an excuse for omitting the notice in writing (*St. Louis, I. M. & So. v. Starbird*, 243 U. S. 592). The only doubt of the court had been as to whether the prohibition, in Act of March 4, 1915, of a requirement fixing less than 90 days for giving notice of claims in respect of goods established a public policy that would affect the present case. "As to goods, a record is kept, yet even there a reasonable prompt notice is necessary as a check upon fraud. There is no record of passengers, and the practice of fraud is too common to be ignored. It is impossible to suppose that Congress, when it was dealing with notices of claims for baggage, 39 Stat. 441,442, should not have thought of passengers' claims for personal injuries, and as it passed them by, we must suppose that it was satisfied to leave them to the Interstate Commerce Commission and the common law."—Opinion by Mr. Justice Holmes.

In a dissenting opinion, in which the Chief Justice and Mr. Justice McKenna concurred, Mr. Justice Clarke thought the statute of 1915, though in terms applying only to damages to goods, should be applied to claims for personal injury; that "the likelihood is much greater that fraudulent claims will be made for injuries to goods, for damages often cannot be discovered until they are unpacked after having left the custody of the carrier, but it must be rare indeed that a passenger can be injured except in the presence of some one or more of the carrier's agents."

The dissenting justices also think the requirement unjust because, "a shipper usually is at least in physical condition to make prompt claim, but many men are so badly injured in accidents that they are wholly incapable of making claim in writing within thirty days. . . ."—*Gooch v. O. S. L.* Decided February 27, 1922.



## Labor Board Decisions

### Continuous Time Because of Wash-Out Denied

A passenger train crew on the Great Northern was tied up for 46 hours because of a wash-out, after which they were ordered to dead-head back to their initial terminal. They were paid for their services under Rule 20 of the agreement between the employees and the carrier, but they contended that such service should be paid for on continuous time basis. The Labor Board denied the claim of the employees.—*Decision No. 718.*

### Classification of Chauffeur as Mechanic Denied

A chauffeur employed by the maintenance of way department of the Terminal Railroad of St. Louis, to operate a truck used to transport maintenance materials, asked for a reclassification as a mechanic, because he made minor repairs on the truck, the railroad having applied increases and decreases in accordance with Order No. 2 and No. 147 respectively on the basis of "laborer employed in and around shops and roundhouses." The claim for reclassification as a mechanic was denied.—*Decision No. 711.*

### Penalty Overtime for Turning Trains Denied

Crews in passenger service on the M. K. & T. claimed one hour additional compensation for turning trains because of having been directed to head around one leg of a wye and back around another leg to the passenger station at Oklahoma City. The Board decided that such train movements before the day's work is completed are not in violation of the rules of the agreement between the carrier and the employees affected, but that the employees in question are entitled to pay on the basis of actual minutes at pro rata rates in addition to all other time or mileage made on the trip from the time the train passes onto the first leg of the wye until it passes onto the main track from the second leg of the wye.—*Decision No. 719.*

### Railroad's Right to Demote Employees

The Baltimore & Ohio made changes in its signal organization, which resulted in the demotion of certain assistant signalmen to helpers. The signal employees protested on the ground that an arbitrary change in classification and rating of employees was in violation of the Transportation Act. At the hearing nothing was introduced to show that the men classified as helpers were required to perform any other work than that within such a classification. The Labor Board decided that the carrier had not violated the provisions of the agreement unless the employees in question are assigned to perform the work of maintainers or assistant maintainers; and further that such demoted employees should be credited with the full time served as assistant signal maintainers and rated on that basis when again promoted.—*Decision No. 709.*

### Seniority Rights of Minor Not Allowed

An employee of the American Railway Express Company at Fort Scott, Kan., who was under age, was laid off when forces were reduced, although employees with less seniority were retained. The employees claimed that he should have been allowed to displace another employee junior in service but the carrier stated that there was no position available in the service in which, under its rules, a minor could be employed; the carrier also contended that there was no position to which he could have been appointed and for which he was fit. The Board decided that Rule 4, Article 28, which states that "promotions shall be based on seniority, fitness and ability, and where fitness and ability being sufficient seniority shall prevail," covered the case. It, therefore, upheld the position of the carrier.—*Decision No. 687.*

### Monthly Rate of Stationary

#### Engineers Includes Overtime

Stationary engineers on the Colorado & Southern are paid a monthly rate which has been subject to the increases of Decision No. 2 and decreases of Decision No. 147, but was established on Supplement No. 7 to Order No. 27 on a monthly rate obtained by multiplying a 12-hour working period by 365 and then dividing by 12. This rate was not changed when the men were placed on an eight-hour basis. The employees now contend that the present monthly rate should be considered as being on the basis of a 306-day year so that the men would be paid over-time on Sundays and holidays. The carrier's position, however, was that as the monthly rate is now established it is on a basis including work done on Sundays and holidays and that the change suggested would be equivalent to paying the men double time for Sunday and holiday work. The board denied the claim of the employees.—*Decision No. 717.*

### Foremen Need Not Be Employed

#### for the Full Time Laborers Are at Work

A case was presented to the Labor Board with respect to the question of employing a coal chute foreman for a less number of hours and days than the laborers he supervised. Evidence shows that he was employed with a gang of laborers for 365 days a year and ten hours a day. On March 6, 1920, he was instructed to work only on week days and nine hours a day, the laborers continuing on the old schedule. The United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers contended that in Supplement No. 8 to General Order No. 27 no change in hours was authorized and that the foreman must be permitted to work the same number of hours as the men. The carrier contended that this provision of Supplement No. 8 was canceled by the National Agreement with the Brotherhood and that there is nothing in this agreement which requires the carriers to employ a man in excess of eight hours on regular week days, if his services are not required. The contention of the carrier was sustained.—*Decision No. 713.*

### Basis of Monthly Rate for Track and Shop Laborers

An engine watchman was, on January 1, 1918, paid the rate of \$67.50 a month. On September 1, 1918, the effective date of Supplement No. 7 to General Order No. 27, an hourly rate of 38¾ cents was established and it remained in effect up to March 1, 1920, when it was changed to a monthly rate of \$145 a month, in accordance with Section a-12, Article V of agreement between the Director General of Railroads and the United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers. This rate was increased to \$165.40 a month on May 1, 1920, the effective date of Decision No. 2 of the Labor Board, and was reduced July 1, 1921, to \$145 in accordance with Decision No. 147 of the Labor Board.

The employees contended that the watchman should have received a monthly rate of \$189.64, under Decision No. 2 of the Labor Board, on the claim that he worked 12 hours each night, 365 nights a year at straight-time for 10 hours 365 days a year, and two hours' overtime for 365 days plus 12 hours' overtime for 52 Sundays. The carrier maintained that the actual time put in by this employee and the amount allowed on the hourly basis from August 31, 1918, was slightly less than \$145 a month, and that when the national agreement of the maintenance of way employees, effective December 16, 1919, was received the employee was placed on a monthly rate of \$145, predicated on the average earnings on the hourly basis; that, effective with Decision No. 2 of the Labor Board, the position was increased to \$165.40 a month, and was again reduced to \$145 under the provisions of Decision No. 147 of the Labor Board.

The Labor Board decided that under Section a-12, Article V, of the United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers' agreement, the monthly rate should be predicated on the hours for which payment was allowed, when rated on the hourly basis.—*Decision No. 714.*

## Foreign Railway News

### Electrical Standardization in England

LONDON.

Owing to the inability of the companies which form the proposed Southern group of English railways, namely the London & South Western, the London, Brighton & South Coast and the South Eastern & Chatham to agree to some form of uniformity in future plans for the electrification of these lines, the Minister of Transport has appointed a committee under an independent chairman to consider this matter. The committee consists of nominees of the respective companies under the chairmanship of Sir Philip Nash. Other members include Sir Alexander B. W. Kennedy, formerly chairman of the Electrification of Railways Advisory Committee, Sir Philip Dawson, and Theodore Stevens, M. I. C. E., consulting electrical engineer.

### Further Consolidations in England

A tentative plan for the consolidation of a number of smaller British railways with the Great Western, under the provisions of the British Railways Act, has been announced. The companies affected are the Cambrian, the Cardiff, the Rhymney, the Taff Vale and the Alexandra Docks & Railways. The proposal now goes to the stockholders for their approval. In general the plan provides for issuing to the holders of securities of the companies to be absorbed stocks and bonds of the Great Western of a character and yield similar to those held in the other companies. A novel provision in the proposals to be submitted to the stockholders of three of the companies is the indemnity payment to the directors of the old companies to compensate them for the loss of their positions.

### Sir Henry Thornton Tells of

#### Railway Conditions in Britain

Sir Henry W. Thornton, general manager of the Great Eastern (England), and formerly general superintendent of the Long Island, in a communication to the New York Herald says in part:

"The railway industry is uniformly in a bad position in almost every country, although I think in some respects we are better off in England than are the American roads, largely because whatever mistakes our government may have made they did not fall into the cardinal error of mixing politics with the working of the railways, and the administration of transportation in England during the war was left almost entirely to those who were suspected of some knowledge of the business. Railway rates and fares must generally be reduced if industry is to get on its legs again.

"No sane railway administrator takes any other position, but this cannot be brought about until working costs are reduced, which in turn depends to a large degree on wages. Materials in this country have already fallen considerably. Wages are moving downward, but, what is more important, a fine spirit permeates the relations between the railway trade unions and the railway companies.

"There has always been a struggle between the railway workers and the railway companies to force wages up on the one hand and reduce them on the other. Until there is born a spirit of mutual confidence in each other, a desire for fair play, sincerity in negotiation and the execution of agreements, and all those things which make for better relations, the problem of adjusting railway wages will be exceedingly difficult and in most cases the results will be unsatisfactory. It will be said that such conditions as I have described are Utopian and impossible of attainment, but in a large measure they have been attained in England, and I can see no reason why they should not be reached elsewhere. At any rate, until there is worked out a cycle of reduced cost of living, lower wages and less taxation the world is going to be in a very bad way."

## Equipment and Supplies

### Locomotives

THE CHICAGO, MILWAUKEE & ST. PAUL is inquiring for 50 Mikado type locomotives.

THE FLORIDA EAST COAST has ordered from the American Locomotive Company 7 Pacific type and 3, 6-wheel switching locomotives.

THE CHICAGO, INDIANAPOLIS & LOUISVILLE was incorrectly reported in the *Railway Age* of March 4 (page 546), as inquiring for 20 locomotives.

### Freight Cars

THE FLORIDA EAST COAST is inquiring for 10 caboose cars.

THE CHICAGO & NORTH WESTERN is inquiring for 2,700 freight cars of various types.

THE TENNESSEE COAL & IRON RAILROAD is inquiring for 150 ore dump cars of 70 tons capacity.

THE CHICAGO WEST PULLMAN & SOUTHERN is inquiring for from 15 to 50 car bodies of 50 tons capacity.

THE NORFOLK & WESTERN has renewed its inquiry for freight cars and is now inquiring for prices on from 2,000 to 4,000 all steel hopper cars of 70 tons capacity.

THE WESTMORELAND COAL COMPANY reported in the *Railway Age* of February 11 as inquiring for 100 cars, has ordered 100, 55-ton hopper cars from the Cambria Steel Company.

THE CHESAPEAKE & OHIO expects to send out inquiries in the immediate future for building 1,500 57½ ton steel bodies, with an option on 4,500 additional, as soon as drawings and specifications are ready.

THE ATLANTIC COAST LINE has ordered 450 steel underframes and superstructures from the Pressed Steel Car Company and 50 from the Chickasaw Shipbuilding Corporation. These are for box cars to be rebuilt in the railroad company's shops.

### Passenger Cars

THE NORFOLK & WESTERN is inquiring for 7 dining cars.

THE BOSTON & MAINE is inquiring for 43 coaches, 12 smoking cars and 5 combination baggage and smoking cars all to be 70 ft. long, also for 4 combination baggage and mail cars, 61 ft. long, and 25 milk cars, 51 ft. long.

THE PENNSYLVANIA RAILROAD has authorized the purchase of 250 all steel cars as follows: 190 coaches, 35 combination passenger and baggage cars and 25 combined baggage and mail cars. Bids will be asked for at once, as cars are wanted for use this coming summer.

### Iron and Steel

THE GREAT NORTHERN is inquiring for 1,000 tons of reinforcing bars.

THE NORTHERN PACIFIC has ordered 5,000 tons of rails from the Colorado Fuel & Iron Company.

THE ATCHISON, TOPEKA & SANTA FE has ordered 10,000 tons of rails from the Colorado Fuel & Iron Company.

THE UNION PACIFIC has ordered 180 tons of structural material for a freight shed at Los Angeles, Cal., from the Llewellyn Iron Works, Los Angeles.



THE UNION PACIFIC has ordered 1,500 tons of tie plates from the Colorado Fuel & Iron Company; 350 tons of track spikes from the Inland Steel Company and 200 tons of track bolts from the Kansas City Bolt & Nut Company.

THE MISSOURI PACIFIC has ordered 20,000 tons of 85 and 90 lb. steel rails allotted as follows: 10,000 tons from the Colorado Fuel & Iron Company; 5,000 tons from the Illinois Steel Company; and 5,000 tons from the Inland Steel Company.

### Track Specialties

THE MISSOURI PACIFIC is inquiring for 14,000 angle bars for 90 lb. rails and 39,000 angle bars for 85 lb. rails.

THE CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS closed bids recently for low switch stands, split derails, guard rails, rigid spring and solid manganese frogs, switches and switch points, bids for which were submitted to W. J. Hiner, Cincinnati, Ohio, before 12 o'clock noon of March 6.

### Miscellaneous

THE NEW YORK, NEW HAVEN & HARTFORD will receive bids until 12 o'clock noon, March 20, at New Haven, Conn., for approximately 300,000 net tons of high volatile R/M bituminous coal to be delivered at South Boston, Mass., between April 1, 1922, and April 1, 1923.

### Signaling

THE NORTHERN PACIFIC is inquiring for automatic block signals for installation on 151 miles of single track and 53 of double track between Dilworth, Minn., and Mandan, N. D.

AT ALLEGRIFFUS, PA., on the steep grade west of Altoona, on the morning of February 15, about one o'clock, occurred an accident which might happen any day, on a four track railroad, but which in fact is exceedingly rare; the partial wrecking of two trains both moving, side by side, in the same direction. The reports indicate that no person was injured. Eastbound passenger train No. 16, the Iron City Express, was moving eastward on track No. 2, and a freight train, moving alongside on track No. 1, was suddenly stopped by the derailment of a box car. The derailed car fell towards the passenger train and several sleeping cars were scraped along the sides, a number of windows being broken. The car "London" was considerably damaged about the front end, the freight car having been wedged between the sleeper and a part of the freight train. No. 16 was delayed about two hours.



Crowds Trying to Enter Subway Station in Berlin During Strike

## Supply Trade News

The Stowell Company, South Milwaukee, Wis., has moved its Chicago office from 509 Monadnock Block to 628 McCormick building. E. B. Hansen will continue as manager of the Chicago office.

Charles D. Watson has been elected vice-president of the Watson Engineering Company, Cleveland, Ohio, to succeed H. R. Hadlow, who has retired and R. L. Harding has been elected secretary to succeed W. P. Brown, who has also retired. Wilbur J. Watson will continue as president and S. F. Agnew will resume the position of treasurer, succeeding the late A. R. Warner.

William McClellan, president of the American Institute of Electrical Engineers, has announced the incorporation of the firm of McClellan & Junkersfeld, with temporary offices at 141 Broadway, New York. The work of the new organization will be on power plants, transmission systems, water power developments, electrification of railroads and general industrial and utility engineering and construction.

John Lambert, formerly president of the American Steel & Wire Company, died at Pasadena, Cal., of pneumonia, on March 6. Mr. Lambert was born at Lambertville, N. J., on January 12, 1847. After serving with the New Jersey cavalry in the Civil War, he came to Joliet, Ill., in 1867. In 1879, he began the manufacture of steel wire and after a series of mergers became president of the American Steel & Wire Company.

The Dresser-Minton Company, construction engineers, has been organized by F. J. C. Dresser and J. H. Minton, with headquarters in the Arcade building, Cleveland, Ohio. The company has been formed to engage in general building and contracting with special reference to railroad structures. Mr. Dresser has for the last 18 years been concerned with railroad work and was for a number of years with the Chicago & North Western in charge of terminal and bridge work. He was later manager for the contractor in general charge of the construction of engine and car shops for the Pennsylvania and the New York Central. Recently he served as district manager of the Cleveland district of the Austin Company. Mr. Minton was formerly senior assistant engineer in the office of the chief engineer of construction of the Pennsylvania Lines West, at Pittsburgh, Pennsylvania, and has been engaged in railroad construction work for the past 18 years.

The Whiting Corporation, Harvey, Ill., has established its own branch sales office in New York City at 136 Liberty street, having discontinued its agency agreement with the Wonham, Bates & Goode Trading Corporation, New York City, who formerly represented the Whiting corporation in the East. J. Ross Bates, now a vice-president of the Whiting Corp., is in charge of the new office and will be assisted in the New York territory by D. Polderman, Jr. In the New England states he will be assisted by R. C. Maley, who will open an office at Springfield, Mass. All of these men were formerly associated with the Wonham, Bates & Goode Trading Corporation. The Whiting corporation has opened a branch office in Indianapolis, Ind., 305 Merchants Bank building, in charge of S. E. Stout, formerly at the main office, in Harvey. Mr. Stout will cover southern Indiana and adjoining cities in Ohio and Kentucky. The corporation's Detroit office has been moved from Penobscot building to 206 Stahelin building, 3000 Grand River avenue.

### Obituary

Otis H. Cutler, chairman of the board of directors of the American Shoe & Foundry Company, New York, died at Miami, Fla., on March 4.

## Railway Construction

**ATCHISON, TOPEKA & SANTA FE.**—This company contemplates undertaking numerous improvements and betterments to its lines during the current year, among which are the construction of a new division office building, Harvey hotel and railway reading room at Newton, Kan., a new brick outbound freight house at Dallas, Tex., and extensive additions and improvements to the Harvey house at Gallup, N. M. The aggregated total set aside in the 1922 budget for stations and office buildings is \$1,047,919. New power plants will be constructed at San Bernardino, Cal., and Albuquerque, N. M., and hot-water boiler-washout systems will be installed at Cleburne, Tex., and Temple. The funds appropriated for shop buildings, engine houses, etc., amount to \$960,170, and for shop machinery and tools, \$735,901. Bridge renewals are estimated at \$1,519,203. Automatic signals estimated to cost approximately \$600,000 will be installed between Williamsfield, Ill., and Knox; Dumas, Mo., and Medill; Bucklin, Kan., and Ethel; Melvern, Kan., and Ridgerton; Lebo, Kan., and Emporia; Neva, Kan., and Cedar Point; Wagner, Kan., and Braddock; Walton, Kan., and Newton; Gainesville, Tex., and Ardmore, Okla.; Somerville, Tex., and Caldwell; and in the yards at La Junta, Colo., Dillon, N. M., and Belen, N. M. In addition to the work already mentioned \$567,443 will be spent on the elimination of grade crossings and \$219,828 on water stations.

**BASTROP & LAKE PROVIDENCE.**—This company has been organized to construct a railroad from a point near Bastrop, La., eastward to the town of Mer Rouge, and from there to Point Pleasant, a distance of about 10 miles. Eventually the road will be extended to Lake Providence, an additional line of approximately 25 miles.

**BOSTON & ALBANY.**—This company will in the near future build a temporary passenger subway at Springfield, Mass., to cost approximately \$25,000. New bridges will be built at Webster, Mass., to cost approximately \$25,000, and at West Brookfield, to cost approximately \$50,000. Fender work to be done on the Chelsea creek drawbridge will cost in the neighborhood of \$15,000.

**CHICAGO GREAT WESTERN.**—This company which was noted in the *Railway Age* of January 28, page 303, as receiving bids for the construction of a steel coaling station at Chicago estimated to cost about \$23,000 has awarded the contract for this work to the Roberts & Schaefer Company, Chicago.

**CHICAGO, ROCK ISLAND & PACIFIC.**—This company has awarded a contract to the Railway Water & Coal Handling Company, Chicago, for several extensions to its fire protection pipe lines at its tie plant at Little Rock, Ark.

**DODGE CITY & CIMARRON VALLEY.**—The Interstate Commerce Commission has issued a certificate authorizing the construction of an extension from a connection with the existing line at or near Satanta, Kan., in a generally northwesterly and westerly direction through Haskell, Grant and Stanton counties, 55 miles. The line is to be leased to and operated by the Atchison, Topeka & Santa Fe.

**GREAT NORTHERN.**—This company is receiving bids for the construction of a 500-ton reinforced concrete coaling station at Minneapolis, Minn.

**ILLINOIS CENTRAL.**—This company has been requested by the city of Arcola, Miss., through a petition to the Mississippi Railroad Commission to construct a new station at that point.

**MISSOURI PACIFIC.**—This company will receive bids until March 13, for the construction of a frame and stucco combination freight and passenger station, 20 ft. by 74 ft., at Jerome, Ark.

**MOBILE & OHIO.**—This company, and the St. Louis-San Francisco, have been asked by the Mississippi Railroad Commission to construct sheds over the platforms of their union passenger station at Tupelo, Miss.

**NASHVILLE, CHATTANOOGA & ST. LOUIS.**—This company, the St. Louis-San Francisco, the Southern, the Union, the Louisville & Nashville, and the city of Memphis, Tenn., will construct a re-

inforced concrete subway under the tracks crossing South Bellevue boulevard in that city. This work is estimated to cost \$300,000, of which 80 per cent will be paid by the railroads and 20 per cent by the city. Plans are now being made and work is expected to be started by summer.

**OSAGE.**—The Interstate Commerce Commission has issued a certificate authorizing the construction of a line from Foraker, Okla., into the Osage County oil fields, a distance of 10.44 miles.

**PHILADELPHIA & READING.**—This company is rebuilding its drawbridge, including additional interlocking installations, at Darby Creek, Pa. The company is also rebuilding 11 bridges in the neighborhood of Harrisburg, Pa., an overhead bridge at Mill Creek Jct., Pa., a drawbridge at Atlantic City, N. J., and a bridge at Chester Springs, Pa. The company is rebuilding its coal yard at Twenty-third and Arch streets, Philadelphia, and is eliminating 5 grade crossings between Swatara, Pa., and Hummelstown and one at Douglassville, Pa. A new passenger station at Swatara and a passenger and freight station at Coatesville are under contract. The company is also installing new refrigerating machinery at Reading Terminal Market, Philadelphia.

**ST. LOUIS-SAN FRANCISCO.**—This company, which was noted in the *Railway Age* of February 25, page 502, as contemplating the construction of a second main track between Spring Hill, Kansas, and Paola, a distance of approximately 13 miles, and between Windsor Springs, Missouri, and Valley Park, a distance of about 5 miles, has awarded a contract for the former to the Walsh Construction Company, Davenport, Iowa, and for the latter work to grant Smith & Company, St. Paul, Minnesota,—this to further include grade reduction work at Garnsey, Missouri, and Crocker and the construction of 3½ miles of second track at Swedenborg, Missouri. The same company will reconstruct with company forces part of its freight house at Henryetta, Oklahoma, recently destroyed by fire.

**ST. LOUIS-SOUTHWESTERN.**—This company has awarded a contract to the Roberts & Schaefer Company, Chicago, for the construction of two 100-ton, electrically operated, reinforced concrete locomotive coaling plants—one at Camden, Ark., and the other at Plano, Tex.

**STATEN ISLAND RAPID TRANSIT.**—This company has ordered from the American Car & Foundry Company, Wilmington, Delaware, a wooden, side-wheel ferry boat, 143 ft. long with a beam of 34 ft. and a draft of 13 ft. and with a displacement of 618 gross tons. This boat, which will be placed in service between Tottenville, Staten Island, and Perth Amboy, N. J., will be completed in five or six months. The company has recently made some improvements in its passenger terminal at Perth Amboy, including the provision of separate runways for passengers and vehicles and the enlargement of the waiting room.

**TOLEDO, ST. LOUIS & WESTERN.**—This company has awarded a contract to the Ogle Construction Company, Chicago, for the construction of a 300-ton coaling station at East St. Louis, Ill.



Photo from Keystone View Co.

Collision Between Winnipeg Flyer and a Snow Plow



## Railway Financial News

**ARKANSAS CENTRAL.—Taken Over.**—This road, which has been operated by the Missouri Pacific for some time, was absorbed by that company on March 1, and will henceforth be known as the Paris district of the Central division. The Arkansas Central's line extended between Fort Smith, Ark., and Paris, 46 miles.

**ATLANTA, BIRMINGHAM & ATLANTIC.—Ask Government Loan.**—The receiver has applied to the Interstate Commerce Commission for a government loan of \$529,466 for 15 years.

**BALTIMORE & OHIO.—New Directors.**—Frederick H. Rawson, of Chicago, and Joseph E. Widener, of Philadelphia, have been elected directors to succeed John G. Shedd and W. Averill Harriman, who have resigned in compliance with the Interstate Commerce Commission's ruling on interlocking directorates.

**BIRMINGHAM & NORTH WESTERN.—Authorized to Issue Bonds.**—This company has been authorized by the Interstate Commerce Commission to issue \$400,000 of first mortgage bonds for the purpose of refunding or retiring an equal amount of first mortgage bonds maturing March 1, 1922.

**BUFFALO, ROCHESTER & PITTSBURGH.—Asks Authority to Issue Bonds.**—This company has applied to the Interstate Commerce Commission for authority to issue \$8,351,000 of consolidated mortgage 4½ per cent bonds which are not to be sold at present but are to be used to refund existing obligations during 1922 and reimburse the treasury for expenditures. A part of these bonds had been nominally issued before the effective date of the law requiring the authority of the commission and it is proposed to issue an additional amount of \$4,270,000, making the total \$8,351,000.

**CANADIAN NATIONAL RAILWAYS.—Notes Offered.**—A syndicate headed by Dillon, Read & Co., is offering an issue of \$11,000,000 Canadian Northern three-year 5 per cent notes at 99½ to yield about 5.15 per cent. The notes are a direct obligation of the Canadian Northern Railway Company forming part of the Canadian National Railway system, which is owned by the Canadian Government.

**CHICAGO JUNCTION.—Six Months' Guaranty Determined.**—The Interstate Commerce Commission has issued a final certificate for the amount of this company's guaranty for the six months' period of 1920 amounting to \$1,565,319. Part of this has been paid and the balance due is \$315,319.

**CHICAGO, ROCK ISLAND & PACIFIC.—Court Hearing on Clause in Mortgage.**—The Central Union Trust Company and David R. Francis, trustee for this company's first and refunding mortgage, have been asked to appear before Judge Carpenter in the Federal Court at Chicago on March 11 to show cause why a clause preventing junior encumbrances on the company's property should not be removed from the indenture of that mortgage. The outstanding bonds amount to \$94,941,100. Holders of about \$15,000,000 worth have already assented to removing the clause.

**COLUMBUS & GREENVILLE.—Asks Authority to Abandon Lines.**—The receiver has applied to the Interstate Commerce Commission for authority to abandon two branches: from Stoneville to Percy, Miss., 23.2 miles, and from Itta Bene to Webb, Mississippi, 34.3 miles.

**DENVER & RIO GRANDE.—Bond Deposit Extension.**—The Hammond committee, representing holders of the first and refunding 5 per cent bonds and certificates of deposit have extended to March 31, 1922, the time in which bonds may be deposited with the Bankers Trust Company and sub-depositaries signifying approval of the Western Pacific's reorganization plan. The Perkins committee has announced that holders of the first and refunding bonds who have dissented from the plan may deposit their bonds up to March 31 with the Farmers' Loan and Trust Company. The Sutro committee representing the 7 per cent cumulative ad-

justment mortgage bonds has announced that the time of deposit with the American Exchange National Bank has been extended to March 31.

**DETROIT, TOLEDO & Ironton.—Authorized to Issue Bonds.**—This company has been authorized by the Interstate Commerce Commission to issue \$451,000 of first mortgage, 50 year, 5 per cent gold bonds to be sold for cash at not less than par and the proceeds to be used in reimbursement of expenditures for additions and betterments.

**ERIE.—Asks Authority to Sell Bonds.**—This company has applied to the Interstate Commerce Commission for authority to sell \$5,000,000 of Erie Railway consolidated mortgage 7 per cent extended bonds due September 1, 1920, of which it expects to sell about half at this time and to pledge the balance pending the sale as security for short term notes. The proceeds for the sale are to discharge a like amount of three-year 6 per cent secured gold notes maturing April 1.

**MINNEAPOLIS & ST. LOUIS.—Ask Government Loan.**—This company has applied to the Interstate Commerce Commission for a loan of \$2,000,000 from the revolving fund for a period of five years' duration to enable it to meet maturities and make certain improvements.

**MISSOURI & NORTH ARKANSAS.—To Be Sold.**—The date for the sale of this road has been set for April 10.

**MISSOURI PACIFIC.—Takes Over Small Road.**—See Arkansas Central.

**NEW YORK CENTRAL.—Asks Authority to Issue Bonds.**—This company has applied to the Interstate Commerce Commission for authority to issue \$60,000,000 refunding and improvement mortgage 5 per cent bonds. Of the proceeds \$48,055,000 is to be used to pay indebtedness for additions and betterments, or to reimburse the treasury for expenditures and \$11,945,000 is to pay off bonds of subsidiary companies due July 1. The indebtedness for additions and betterments includes several notes to the director general of railroads. The company has been negotiating with J. P. Morgan & Co., for the sale of the bonds and expects to sell them at not less than 90.

**NEW YORK, NEW HAVEN & HARTFORD.—Ask Authority to Issue Bonds.**—This company has applied to the Interstate Commerce Commission for authority to issue first and refunding mortgage bonds in an amount equal to whatever loan may be certified by the commission and applied toward the reduction of the European loan debentures which mature on April 1. The bonds are to be deposited with the Secretary of the Treasury as collateral for the loan. The company had previously applied to the commission for a loan of \$31,000,000, sufficient to pay off the European debentures, but it has also been conducting negotiations with the holders on a plan for extending them.

**NORTHERN PACIFIC.—Authorized to Abandon Line.**—The Interstate Commerce Commission has issued a certificate authorizing the abandonment of a portion of its branch line in Bayfield County, Wis., between Coda and Washburn, 24 miles. The company had applied for authority to abandon the entire branch from Iron River to Washburn, 33.78 miles.

**SEABOARD AIR LINE.—Asks Government Loan.**—This company has applied to the Interstate Commerce Commission for a loan for 15 years of a certain sum or sums of money to be determined in detail when, as and if approved by the commission to the extent necessary to enable it to properly serve the public. The application gives a list of items of maturing indebtedness and additions and betterments amounting to \$14,000,000 and the company desires loans to meet such of these as may be approved by the Interstate Commerce Commission.

**UNION PACIFIC.—Authorized to Acquire Control.**—The Interstate Commerce Commission has authorized the acquisition of control of the railroad operated by the Saratoga & Encampment Railroad Company by an operating agreement with option to purchase.

### More Equipment Trusts Sold

The director general of railroads announced on March 6 that he had confirmed additional sales, at par plus accrued interest, of

railroad equipment trust certificates held by the government, as follows:

To Alfred Boeden and National City Company, New York:

Lake Erie & Western, 1923 to 1935, incl. ....\$561,600  
Spokane, Portland & Seattle, 1923 to 1935, incl. .... 507,000

The total amount of equipment trust certificates sold by the government to date, at par plus accrued interest, is \$220,356,800.

### Treasury Payments to Railroads

The Treasury Department has issued a statement showing the total payments made to railroads under the Transportation Act up to February 28 as follows:

(a) Under Section 204, for reimbursement of deficits during federal control.....	\$1,374,528.58
(b) Under Section 209:	
(1) To carriers to which final payment of the guaranty has been made under paragraph (g), including previous advances under paragraphs (h) and (i).....	5,098,541.23
(2) For advances under paragraphs (h) and (i) to carriers as to which a certificate for final payment has not been received by the Treasury from the Interstate Commerce Commission....	260,510,874.00
(c) Under Section 212:	
(1) For partial payments in respect to the guaranty provided in Section 209.....	165,320,275.05
(2) For partial payments in respect to the reimbursement for deficits during the period of federal control provided in Section 204.....	1,815,841.15
(d) Under Section 210, for loans from the revolving fund of \$300,000,000 therein provided.....	271,154,217.00
Total.....	\$705,274,277.01

The statement also shows that loans to the amount of \$47,552,470 from the revolving fund have been repaid by 19 companies.

### Dividends Declared

Lackawanna Railroad of New Jersey.—1 per cent, quarterly, payable April 1 to holders of record March 8.

Lehigh Valley.—Common, 1½ per cent quarterly; preferred, 2½ per cent, quarterly; both payable April 1, to holders of record March 11.

New York, Lackawanna & Western.—1¼ per cent, quarterly, payable April 1 to holders of record March 14.

St. Joseph, South Bend & Southern.—Common, 1 per cent, semi-annually; preferred, 2½ per cent, semi-annually; both payable March 15 to holders of record March 11.

Southern Railway (Mobile & Ohio stock transfer certificates).—\$2.00, semi-annually, payable April 1, to holders of record March 15.

Warren Railroad.—3½ per cent, semi-annually, payable April 15 to holders of record April 5.

Western Pacific.—Preferred, 1½ per cent, quarterly, payable April 1, to holders of record March 20.

### Trend of Railway Stock and Bond Prices

	March 7	Last week	Last year
Average price of 20 representative railway stocks, close of business .....	59.66	60.28	55.72
Average price of 20 representative railway bonds, close of business.....	82.31	82.57	74.36



Photo by Kadel & Herbert

German Railroad Strikebreakers

## Railway Officers

### Operating

T. C. Herbert, division engineer of the St. Louis division of the Pennsylvania, with headquarters at Terre Haute, Ind., has been promoted to superintendent of the Peoria division, with headquarters at Decatur, Ill.

### Traffic

J. A. McGill has been appointed general agent of the Canadian Pacific, with headquarters at Ottawa, Ont.

Frank H. Standifer, traveling freight agent of the Louisville & Nashville, with headquarters at Sheffield, Ala., has been promoted to general agent, with the same headquarters.

### Mechanical

C. M. Starke, assistant master mechanic of the Illinois Central, with headquarters at Memphis, Tenn., has been promoted to master mechanic with headquarters at Centralia, Ill., succeeding J. W. Branton, deceased.

George E. Lund has been appointed master mechanic of the Mahoning division of the Erie with headquarters at Youngstown, Ohio. Walter L. Barr has been appointed master mechanic of the Kent division.

### Special

G. S. Giles has been appointed fire protection engineer of the Union Pacific, with headquarters at Omaha, Neb.

John A. McGrew, superintendent of maintenance of the Delaware & Hudson, has been appointed general superintendent of equipment and way and his former position has been abolished. Mr. McGrew will continue in charge of all maintenance work, both of equipment and way. Mr. McGrew was born June 8, 1873, at Bridgewater, Ohio, and was graduated in civil engineering from Ohio State University in 1895. Upon his graduation he became assistant superintendent of construction of the Columbus & Westernville Electric and, in 1896, entered the service of the Pennsylvania, in its engineering department, at Wellsville, Ohio. From 1899 to 1901 he was assistant engineer, maintenance of way, at Logansport, Ind., and from 1901 to 1903 he was engineer, maintenance of way, at the same point. He was then transferred to Pittsburgh in the same capacity. For six months in 1904 he was special agent for the general manager of the Chicago, Rock Island & Pacific. Then, until 1909, he was a consulting engineer and contractor at Columbus, Ohio, and, latterly, president of the National Engineering Company. In September, 1909, he went to the Delaware & Hudson as inspector of maintenance of its lines, allied properties and street railways. In 1910, he was appointed superintendent of the Saratoga and Champlain divisions with headquarters at Albany, N. Y. From July, 1917, to February 21, 1919, Mr. McGrew was in military service, first as a consulting quartermaster in the construction division and then as a major in the railway division of the American Expeditionary Forces. In April, 1920, he returned to the Delaware & Hudson as superintendent and was appointed superintendent of maintenance on April 1, 1921, which position he held until February 24, 1922, when his promotion became effective.

### Obituary

Joseph Wood, formerly first vice-president of the Pennsylvania, Lines West, and a director of the Pennsylvania railroad, died at his home in Pittsburgh on March 4 as the result of a fall on an icy pavement which he sustained several weeks ago.

A. T. Hemingway, assistant secretary of the Ouachita & North Western, secretary of the Leesville, Slagle & Eastern, and treasurer of the Oakdale & Gulf, died in Kansas City, Mo., on February 24, from the effects of influenza and pneumonia, after a brief illness.